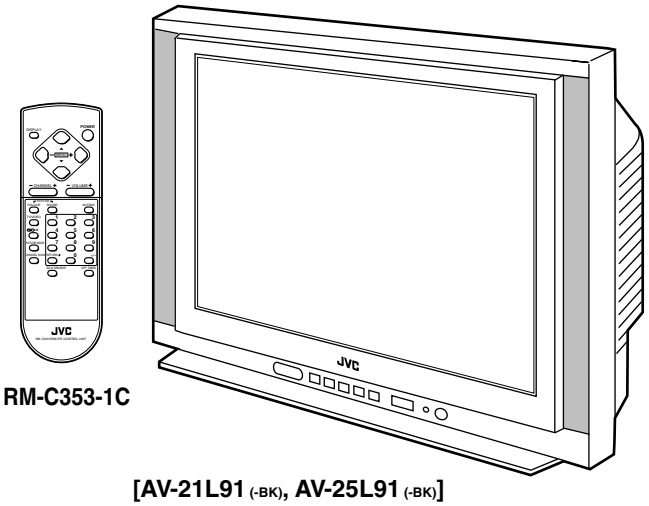
JVC

SERVICE MANUAL

COLOUR TELEVISION

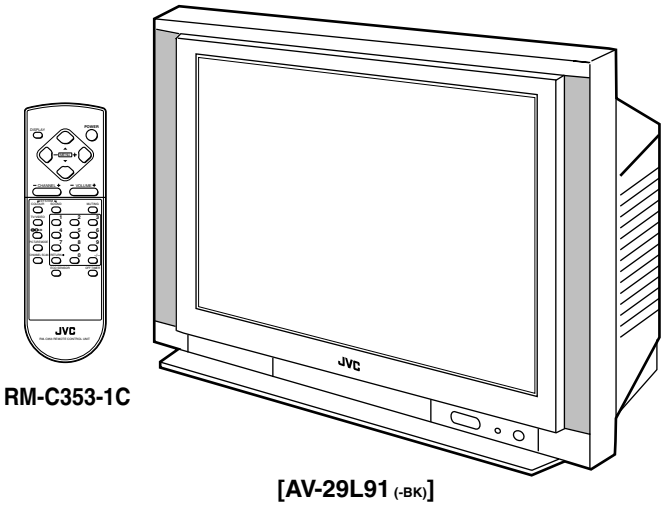
BASIC CHASSIS
CH

AV-21L91 (-BK)
AV-25L91 (-BK)
AV-29L91 (-BK)



RM-C353-1C

[AV-21L91 (-BK), AV-25L91 (-BK)]



RM-C353-1C

[AV-29L91 (-BK)]

tu2522 086-5306051 087-4915026

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No. 51898
Nov. 2001

SPECIFICATIONS

Items		Contents		
		AV-21L91-BK	AV-25L91-BK	AV-29L91-BK
Dimensions (W × H × D)		59.8cm × 46.8cm × 47.15cm	68.2cm × 53.84cm × 47.75cm	73.2cm × 58.8cm × 51.8cm
Mass		24kg	30kg	47kg
TV RF System		B, G, I, D, K, M		
Colour System	TV Mode	PAL / SECAM / NTSC3.58 / NTSC4.43		
	VIDEO Mode	PAL / SECAM / NTSC3.58 / NTSC4.43		
Stereo System		A2 NICAM		
Receiving Frequency	VHF (VL)	43.75MHz – 142.25MHz		46.25MHz – 140.25MHz
	VHF (VH)	142.28MHz – 428.75MHz		147.25MHz – 423.25MHz
	UHF	428.78MHz – 865.75MHz		431.25MHz – 863.25MHz
	CATV	● Cable TVs of Mid (X-Z, S1-S10) Super (S11-S20) & Hyper (S21-S41) bands receivable		
Intermediate Frequency	VIF Carrier	38.0MHz		
	SIF Carrier	31.5MHz (6.5MHz) 32.0MHz (6.0MHz) 32.5MHz (5.5MHz)		
Colour Sub Carrier Frequency		PAL (4.43MHz), SECAM (4.40625MHz / 4.25MHz) NTSC (3.58MHz / 4.43MHz)		
Aerial Input Terminal		75Ω Unbalanced		
Power Input		AC110 – 240V, 50 / 60Hz		
Power Consumption		115W (Max.) / 75W (Avg.)	150W (Max.) / 90W (Avg.)	172W(Max.)/108W(Avg.)
Picture Tube (Vsible size)		51cm measured diagonally	60cm measured diagonally	68cm measured diagonally
High Voltage (at cut-off in service mode)		29kV ± 1kV	31kV ± 1kV	32kV +1/–1.5kV
Speaker		5 × 12cm Oval type ×2		
Audio Output		5W + 5W		7W + 7W
Video / Audio Input (1 / 2 / 3)		Video(1,3) : 1Vp-p, 75Ω (RCA pin jack) Audio(1,2,3) : 500mVrms (-4dBs), High Impedance (RCA pin jack) Component Input (Input 2) Y : 1Vp-p positive (negative sync provided, when terminated with 75Ω) C_B/C_R : 0.7Vp-p 75Ω		
Video/Audio Output		1Vp-p, 75Ω (RCA pin jack) 500mVrms(-4dBs) Low impedance (400Hz when modulated 100%) (RCA pin jack)		
Headphone Jack		Stereo mini jack (3.5ϕ)		
Remote Control Unit		RM-C353-1C		
		(Battery size: AA/R06/UM-3 × 2)		

Design & specifications are subject to change without notice.

SAFETY PRECAUTIONS

1. The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.

2. Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.

3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (⚠) on the parts list in Service manual.** The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.

4. **Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**
   Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND, the ISOLATED (NEUTRAL) : (⏚) side GND and EARTH : (⏚) side GND. Don't short between the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND and never measure with a measuring apparatus (oscilloscope etc.) the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND at the same time.
   If above note will not be kept, a fuse or any parts will be broken.

5. If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See ADJUSTMENT OF B1 POWER SUPPLY).

6. The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.

7. Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.

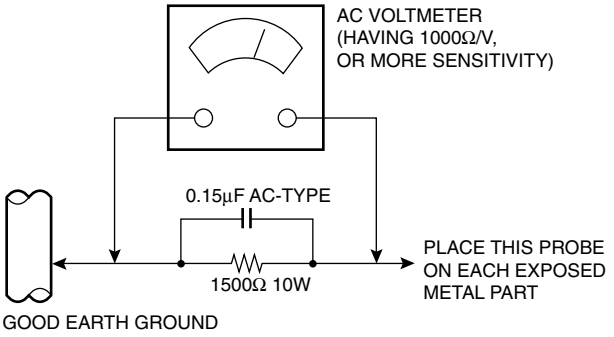
8. When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

9. **Isolation Check**
   (Safety for Electrical Shock Hazard)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screw heads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

(1) **Dielectric Strength Test**
The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 3000V AC (r.m.s.) for a period of one second.
(. . . . Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)
This method of test requires a test equipment not generally found in the service trade.

(2) **Leakage Current Check**
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).
However, in tropical area, this must not exceed 0.2mA AC (r.m.s.).

● **Alternate Check Method**
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000 ohms per volt or more sensitivity in the following manner. Connect a 1500Ω 10W resistor paralleled by a 0.15µF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).
However, in tropical area, this must not exceed 0.3V AC (r.m.s.). This corresponds to 0.2mA AC (r.m.s.).

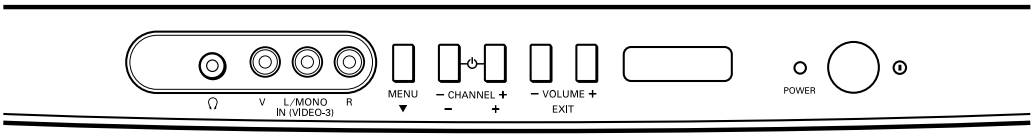


FEATURES

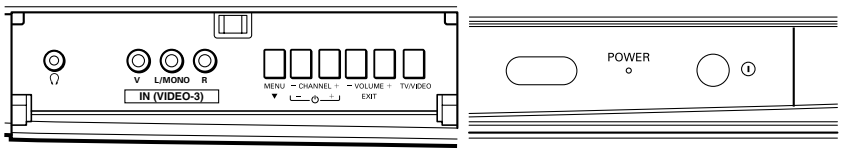
- New chassis design enables use of an interactive on-screen control.
- Pure flat CRT produces fine textured picture in every detail.
- Wide range voltage (110V ~ 240V) for AC power input.
- With AUDIO/VIDEO/COMPONENT input terminals.
- I^2C bus control utilizes single chip ICs.
- By means of AUTO PROGRAM, the TV stations can be selected automatically and the TV channels can also be rearranged automatically.
- Built-in DIGITAL ECO MODE (ECONOMY, ECOLOGY).
  In accordance with the brightness in a room, the brightness and/or contrast of the picture can be adjusted automatically to make the optimum picture which is easy on the eye.
- Built-in OFF TIMER & RETURN +.

FUNCTIONS

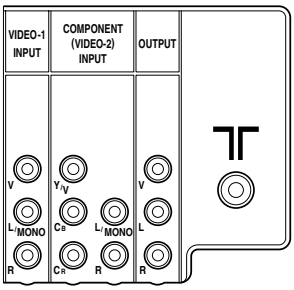
■ FRONT PANEL
[AV-21L91-BK, AV-25L91-BK]



[AV-29L91-BK]

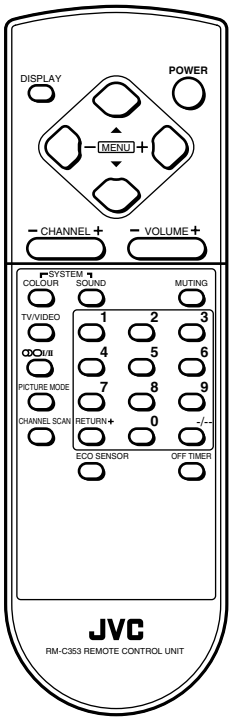


■ REAR PANEL



■ REMOTE CONTROL UNIT

RM-C353-1C



SPECIFIC SERVICE INSTRUCTIONS

DISASSEMBLY PROCEDURE [AV-21L91-BK, AV-25L91-BK]

REMOVING THE REAR COVER

1. Unplug the AC power cord.
2. Remove the 7 or 9 screws marked Ⓐ and 4 screws maked Ⓑ as shown in Fig.1.
3. Withdraw the Rear cover toward you.

[CAUTION]

- When reinstalling the rear cover, carefully push it inward after inserting the Main PWB into the rear cover groove.

REMOVING THE MAIN PW BOARD

- After removing the rear cover.

1. Slightly raise the both sides of the Main PWB by hand, take off the PB stopper marked Ⓒ from the front cabinet.
2. Withdraw the Main PWB backward.
   (If necessary, take off the wire clamp and connectors, etc.)

REMOVING THE SPEAKER

- After removing the rear cover.

1. Remove the 2 screws marked Ⓓ and 2 screws maked Ⓔ as shown in Fig.1.
2. Follow the same steps when removing the other hand speaker.

CHECKING THE MAIN PW BOARD

1. To check the back side of the Main PWB.
   1) Pull out the Main PWB. (Refer to REMOVING THE MAIN PW BOARD).
   2) Erect the Main PWB vertically so that you can easily check its back side.

[CAUTION]

- Before turning on power, make sure that the CRT earth wire and other connectors are properly connected.
- When repairing, connect the Deg. coil to the DEG. connector on the Main PWB.

WIRE CLAMPING AND CABLE TYING

1. Be sure to clamp the wire.
2. Never remove the cable tie used for tying the wires together.
   Should it be inadvertently removed, be sure to tie the wires with a new cable tie.

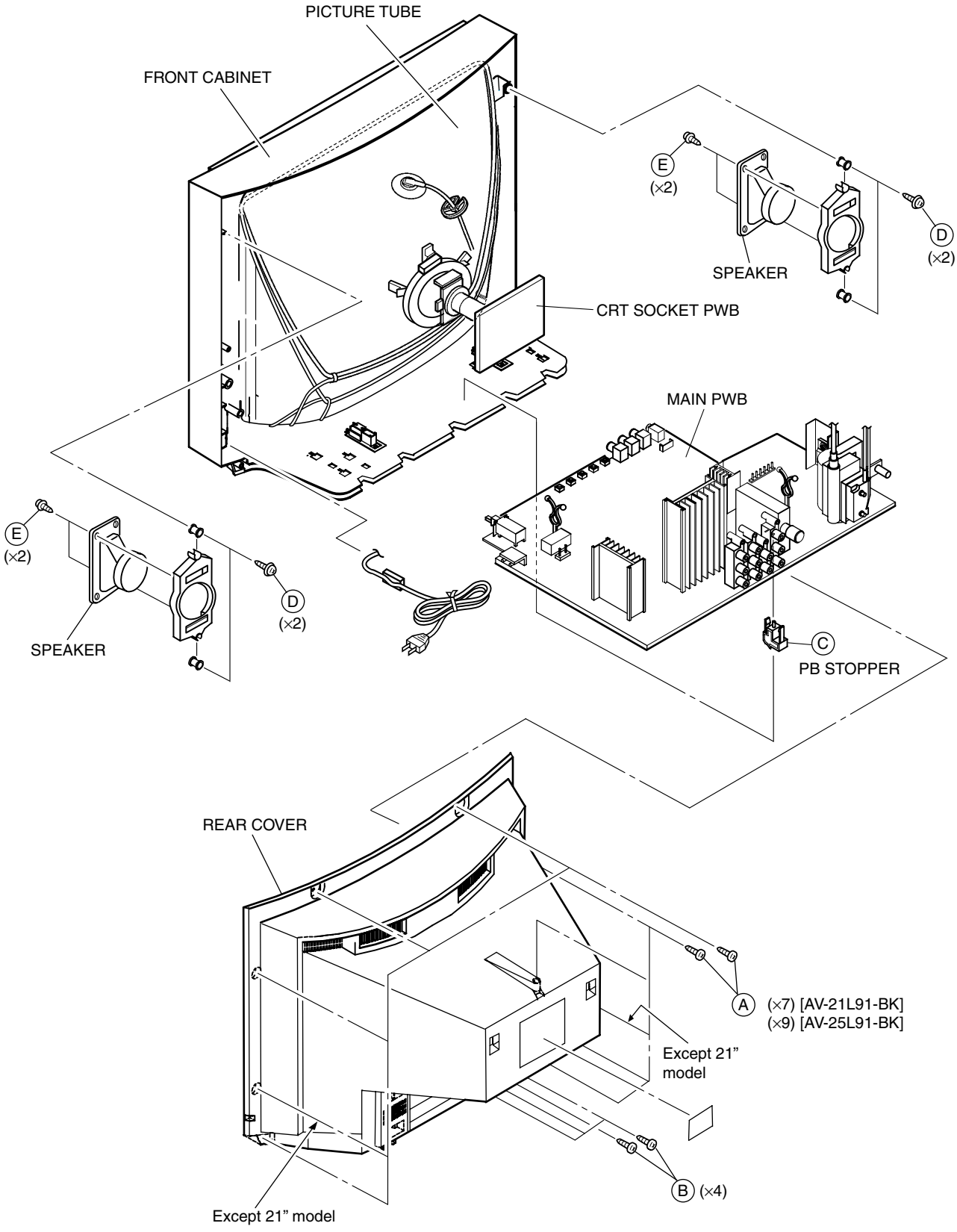

PICTURE TUBE
FRONT CABINET
E
(×2)
D
(×2)
SPEAKER
CRT SOCKET PWB
MAIN PWB
E
(×2)
D
(×2)
SPEAKER
C
PB STOPPER
REAR COVER
A
(×7) [AV-21L91-BK]
(×9) [AV-25L91-BK]
Except 21"
model
B
(×4)
Except 21" model

Fig.1

DISASSEMBLY PROCEDURE [AV-29L91-BK]

REMOVING THE REAR COVER

1. Unplug the AC power cord.
2. Remove the 16 screws marked Ⓐ as shown in Fig.2.
3. Withdraw the Rear cover toward you.

[CAUTION]

- When reinstalling the rear cover, carefully push it inward after inserting the Main PWB into the rear cover groove.

REMOVING THE CHASSIS (CHASSIS BASE AND CONTROL BASE)

- After removing the rear cover.

1. Slightly raise the both sides of the chassis by hand and remove the 2 claws marked Ⓑ under the chassis from the front cabinet as shown in Fig.2.
2. Withdraw the chassis backward.

   (If necessary, take off the wire clamp, connector's etc.)

   * When conducting a check with power supplied, be sure to confirm that the CRT earth wire is connected to the CRT Socket PWB and the Main PWB.

REMOVING THE AV TERMINAL BOARD

- After removing the rear cover.

1. Remove the 4 screws marked Ⓒ as shown in Fig.2.
2. When you pull out the AV Terminal board in the direction of arrow marked Ⓓ as shown in Fig.2, it can be removed.

REMOVING THE CONTROL BASE

- After removing the rear cover and the chassis.

1. While pushing down the 2 claws maked Ⓔ as shown in Fig. 3.
2. When you pull out the Control base in the direction of arrow maked Ⓕ as shown in Fig. 3.
   (If necessary, take off the wire, connector's etc.)

REMOVING THE SPEAKER

- After removing the rear cover.

1. Remove the 4 screws marked Ⓖ as shown in Fig.2.
2. Withdraw the speaker backward.
3. Follow the same steps when removing the other hand speaker.

CHECKING THE MAIN PW BOARD

1. To check the back side of the Main PWB.
   1) Pull out the chassis. (Refer to REMOVING THE CHASSIS).
   2) Erect the chassis vertically so that you can easily check the back side of the Main PWB.

[CAUTION]

- When erecting the chassis, be careful so that there will be no contacting with other PW Board.
- Before turning on power, make sure that the CRT earth wire and other connectors are properly connected.
- When repairing, connect the Deg. coil to the DEG. connector on the Main PWB.

WIRE CLAMPING AND CABLE TYING

1. Be sure to clamp the wire.
2. Never remove the cable tie used for tying the wires together.
   Should it be inadvertently removed, be sure to tie the wires with a new cable tie.

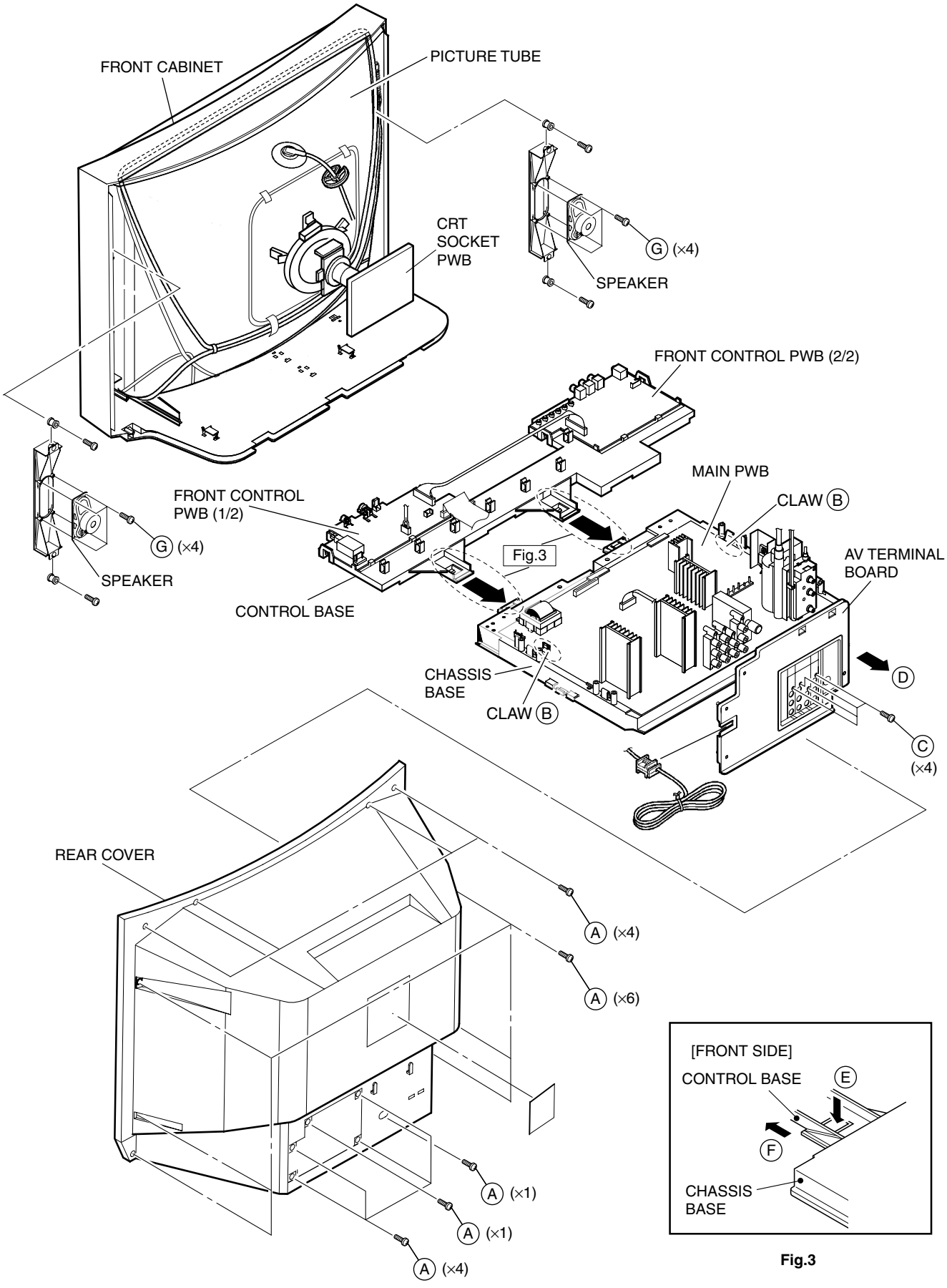

FRONT CABINET
PICTURE TUBE
CRT SOCKET PWB
G (×4)
SPEAKER
FRONT CONTROL PWB (2/2)
MAIN PWB
CLAW B
FRONT CONTROL PWB (1/2)
G (×4)
SPEAKER
Fig.3
AV TERMINAL BOARD
CONTROL BASE
CHASSIS BASE
CLAW B
D
C (×4)
REAR COVER
A (×4)
A (×6)
A (×1)
A (×1)
A (×4)

Fig.2

[FRONT SIDE]
CONTROL BASE
E
F
CHASSIS BASE

Fig.3

REMOVING THE CRT

* Replacement of the CRT should be performed by 2 or more persons.

● After removing the rear cover, chassis etc.,

1. Putting the CRT change table on soft cloth, the CRT change table should also be covered with such soft cloth (shown in Fig. 4).
2. While keeping the surface of CRT down, mount the TV set on the CRT change table balanced will as shown in Fig. 5.
3. Remove 4 screws marked by arrows with a box type screwdriver as shown in Fig. 5.

● Since the cabinet will drop when screws have been removed, be sure to support the cabinet with hands.

4. After 4 screws have been removed, put the cabinet slowly on cloth (At this time, be carefully so as not to damage the front surface of the cabinet) shown in Fig. 6.

● The CRT should be assembled according to the opposite sequence of its dismounting steps.

* The CRT change table should preferably be smaller that the CRT surface, and its height be about 35cm.

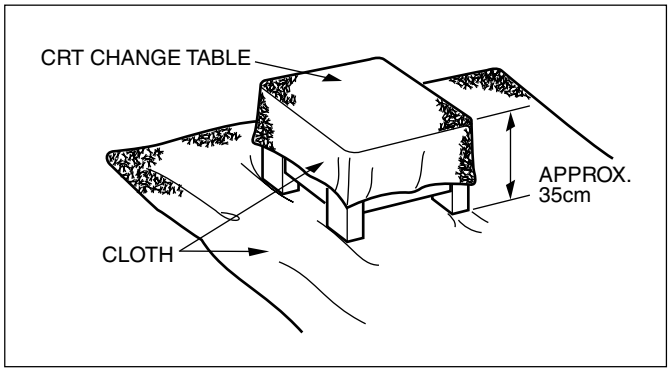


Fig. 4

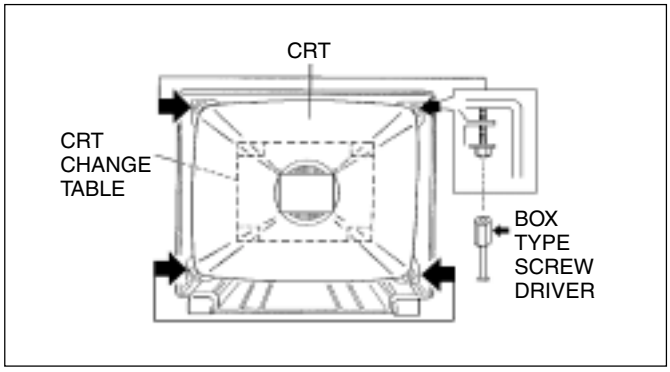


Fig. 5

COATING OF SILICON GREASE FOR ELECTRICAL INSULATION ON THE CRT ANODE CAP SECTION.

● Subsequent to replacement of the CRT and HV transformer or repair of the anode cap, etc. by dismounting them, be sure to coat silicon grease for electrical insulation as shown in Fig. 7.

1. Wipe around the anode button with clean and dry cloth. (Fig. 7)
2. Coat silicon grease on the section around the anode button. At this time, take care so that any silicon greases dose not sticks to the anode button. (Fig. 8)

★ Silicon grease product No. KS - 650N

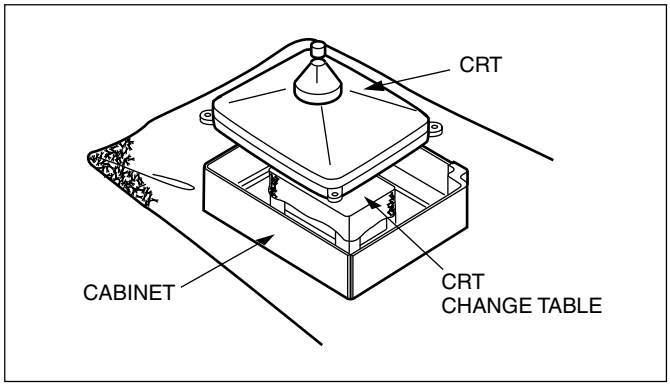


Fig. 6

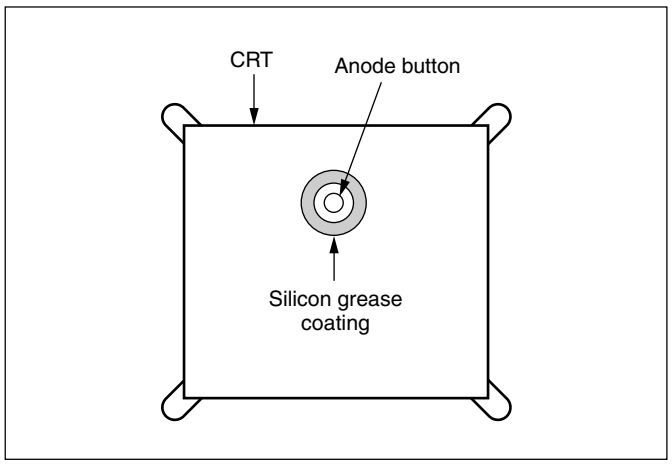


Fig. 7

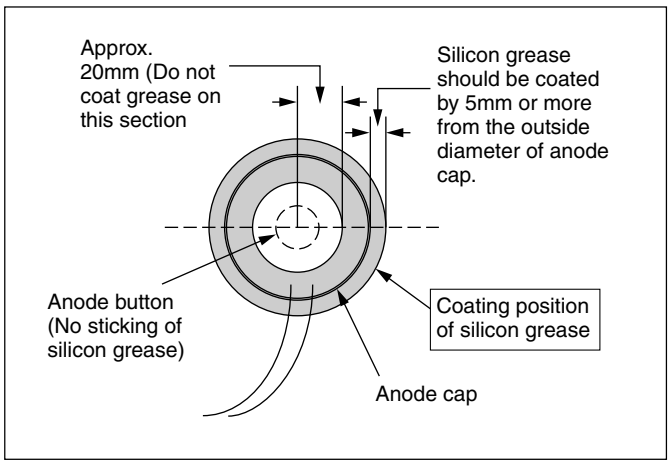


Fig. 8

REPLACEMENT OF MEMORY IC

1. MEMORY IC

This TV uses the following memory IC.

Memory IC: IC1702 on MAIN PW Board

The memory IC memorizes data for correctly operating the video and deflection circuits.When replacing the memory IC, be sure to use the same type IC written with the initial values of data.In other words, use the specific IC listed in “PRINTED WIRING BOARD PARTS LIST”. For its mounting location, refer to “ADJUSTMENT LOCATIONS”.

2. PROCEDURE FOR REPLACING MEMORY IC

(1) Power off

Switch the power off and unplug the power cord from the wall outlet.

(2) Replacing the memory IC

Replace the memory IC with new one. Be sure to use the memory IC written with the initial data values.

(3) Power on

Plug the power cord into the wall outlet and switch the power on.

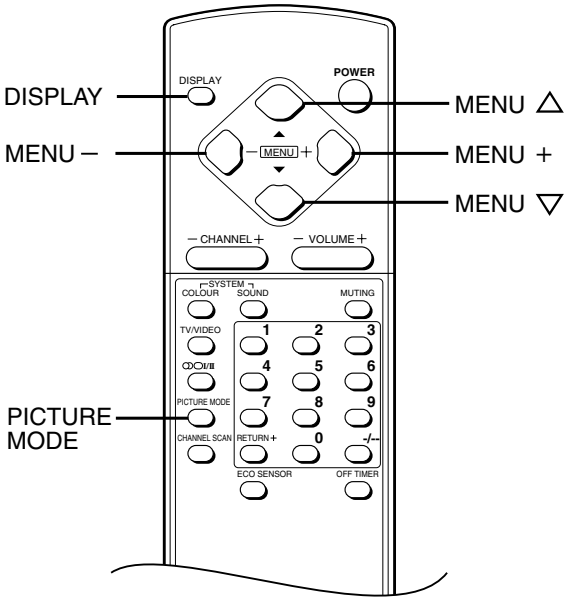
(4) Check and setting of SYSTEM CONSTANT SET:

1) Press the DISPLAY key and the PICTURE MODE key on the remote control unit simultaneously.
   The SERVICE MENU screen will be displayed.(See Fig.1.)
2) In the SERVICE MENU, press the DISPLAY key and PICTURE MODE key simultaneously.Then,the SYSTEM CONSTANT SET screen will be displayed.(See Fig.2.)
3) Check whether the setting values of the SYSTEM CONSTANT SET are the same as those indicated in Table1.
   If the value is different, select the setting item with the MENU ▽/△ key, and set the correct value with the MENU –/+key.
4) Press the DISPLAY key twice to return to the normal screen.

(5) Receive channel setting

Refer to the **OPERATING INSTRUCTIONS** and set the receive channels (channels preset).

NAME OF REMOTE CONTROL KEYS



(6) User setting

Check the user setting values in Table 2, and if setting value is different, set the correct value.

For setting, refer to the **OPERATING INSTRUCTIONS**.

(7) Setting of SERVICE MENU

Verify the setting for each setting item in the SERVICE MENU.(See Table 3.) If readjustment is necessary, perform adjustment referring to “SERVICE ADJUSTMENTS”.

SERVICE MENU

```
SERVICE MENU

1. IF              2. VC
3. DEF             4. VSM PRESET
5. PRESET          6. AUDIO
7. PLUG & PLAY (OFF)

1-7 : SELECT       DISPLAY : EXIT

******* **** ***** *****
      **** **** *** ***
```

Fig. 1

SYSTEM CONSTANT-Ⅰ

```
SYSTEM CONSTANT  SET 1

SYSTEM              MULTI
COMB                YES
TILT                YES
TEXT                YES
SUPER BASS          NO
LANGUAGE            E / R / C

SELECT BY           MENU ▲▼
OPERATE BY +–       DISPLAY
```

SYSTEM CONSTANT-Ⅱ

```
SYSTEM CONSTANT  SET 2

MSP                 YES
BILINGUAL           NO
B / B SOUND         NO
TUNER               MU
COLOUR AUTO         NO

SELECT BY           MENU ▲▼
OPERATE BY +–       DISPLAY
```

SYSTEM CONSTANT-Ⅲ

```
SYSTEM CONSTANT  SET 3

LOCK  1 MHz         010
      500 kHz       010
      250 kHz       010
    156.25 kHz      010
     31.25 kHz      010

SELECT BY           MENU ▲▼
OPERATE BY +–       DISPLAY
```

Fig. 2

SETTING OF SYSTEM CONSTANT SET

Setting item	Setting content	Setting value		
		AV-21L91-BK	AV-25L91-BK	AV-29L91-BK
SYSTEM	MULTI → TRIPLE → PAL → VIET	MULTI	←	←
COMB	YES → NO	NO	←	YES
TILT	YES → NO	NO	←	YES
TEXT	EASTERN → UKRANIAN → RUSSIAN → ARABIC → PAN EURO → NO	NO	←	←
SUPER BASS	YES → PSEUDO → NO	NO	←	←
LANGUAGE	E/T → E	E/T	←	←
MSP	YES → NO	YES	←	←
BILINGUAL	YES → NO	NO	←	←
B/B SOUND	YES → NO	NO	←	←
TUNER	MU → MA	MU	←	←
COLOUR AUTO	YES → NO	NO	←	←
LOCK 1MHz	000 → 024	020	←	←
500KHz	000 → 024	020	←	←
250KHz	000 → 024	020	←	←
156.25KHz	000 → 024	015	←	←
31.25KHz	000 → 024	015	←	←

Table 1

USER SETTING VALUES

Setting item	Setting value
SUB POWER	ON
CHANNEL POSITION	1 POSITION
CHANNEL PRESET	REFER TO OPERATING INSTRUCTIONS
VOLUME	15 ± 2
TV/VIDEO	TV
VNR	OFF
COMPRESS (16:9)	OFF
AUTO SHUTOFF	OFF
CHILD LOCK	OFF
BLUE BACK	ON
VIDEO-2 SET	VIDEO
LANGUAGE	THAI
AI VOLUME	ON
ON SCREEN DISPLAY	POSITION INDICATION
COLOUR SYSTEM	PAL
SOUND SYSTEM	B/G
STEREO MODE	STEREO
PICTURE MODE-VSM	BRIGHT
OFF TIMER	00
ECO SENSOR	OFF
BASS	CENTRE
TREBLE	CENTRE
BALANCE	CENTRE
PICTURE TILT	00 [AV-29L91-BK]

Table 2

SERVICE MENU SETTING ITEMS

Service menu	Setting item
1. IF	1. VCO 2. DELAY POINT
2. VC	1. CUTOFF(R/G) 2. DRIVE(R/G/B) 3. BRIGHT 4. CONT 5. COLOUR 6. TINT 7. SHARP 8. YDELAY **Do not adjust**
3. DEF	1. VER. SLOPE 2. VER. HEIGHT 3. VER. POSITION 4. VER. SCURVE 5. HOR. POSITION 6. HOR. WIDTH 7. EW-PIN 8. EW-TRAPEZ 9. UP CORNER 10. DW CORNER 11. HOR. PARALL 12. HOR. BOW 13. V. ZOOM
4. VSM PRESET **(BRIGHT/STD/SOFT)** **Do not adjust**	1. TINT 2. COLOUR 3. BRIGHT 4. CONT 5. SHARP
5. PRESET **Do not adjust**	1. CB 2. ACL 3. MUS 4. MAT 5. FCO 6. BPS 7. IFLH 8. VID 9. STM 10. AFCW 11. VSW 12. FFI 13. AGC 14. CL 15. AKB 16. HBL 17. BKS 18. READ STATUS 19. VNR
6. AUDIO **Do not adjust**	1. ERROR LIMIT 2. A2 ID THR 3. SOUND SYSTEM
6 / 7. PLUG & PLAY(OFF) **Do not adjust**	

Table 3

REPLACEMENT OF CHIP COMPONENT

■ CAUTIONS

1. Avoid heating for more than 3 seconds.
2. Do not rub the electrodes and the resist parts of the pattern.
3. When removing a chip part, melt the solder adequately.
4. Do not reuse a chip part after removing it.

■ SOLDERING IRON

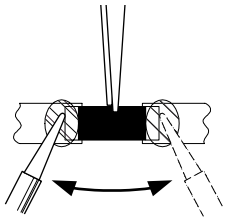
1. Use a high insulation soldering iron with a thin pointed end of it.
2. A 30w soldering iron is recommended for easily removing parts.

■ REPLACEMENT STEPS

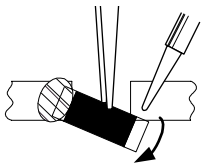
1. How to remove Chip parts

◆ **Resistors, capacitors, etc.**

(1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.

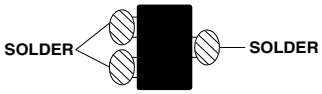


(2) Shift with tweezers and remove the chip part.

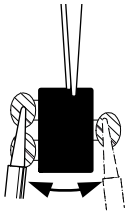


◆ **Transistors, diodes, variable resistors, etc.**

(1) Apply extra solder to each lead.



(2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.

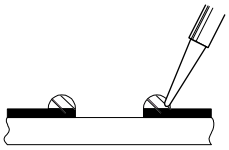


Note : After removing the part, remove remaining solder from the pattern.

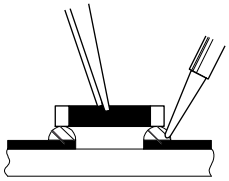
2. How to install Chip parts

◆ **Resistors, capacitors, etc.**

(1) Apply solder to the pattern as indicated in the figure.



(2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

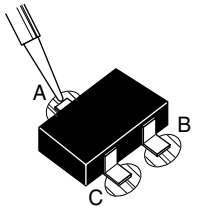


◆ **Transistors, diodes, variable resistors, etc.**

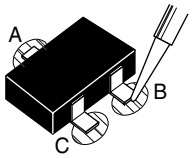
(1) Apply solder to the pattern as indicated in the figure.

(2) Grasp the chip part with tweezers and place it on the solder.

(3) First solder lead **A** as indicated in the figure.



(4) Then solder leads **B** and **C**.



SERVICE ADJUSTMENTS

ADJUSTMENT PREPARATION:

1. **You can make the necessary adjustments for this unit with either the remote control unit or with the adjustment equipment and parts as given below.**
2. **Adjustment with the remote control unit is made on the basis of the initial setting values, however, the new setting values which set the screen to its optimum condition may differ from the initial settings.**
3. Make sure that AC power is turned on correctly.
4. Turn on the power for the set and test equipment before use, and start the adjustment procedures after waiting at least 30 minutes.
5. Unless otherwise specified, prepare the most suitable reception or input signal for adjustment.
6. Never touch any adjustment parts, which are not specified in the list for this adjustment-variable resistors, transformers, capacitors, etc.
7. Presetting before adjustment.
   Unless otherwise specified in the adjustment instructions, preset the following functions with the remote control unit.

● User mode setting position

Setting item	Setting value
PICTURE MODE(VSM)	BRIGHT
VNR	OFF
BASS,TREBLE,BALANCE	CENTRE
TINT,COLOUR,BRIGHT,CONT,SHARP	CENTRE

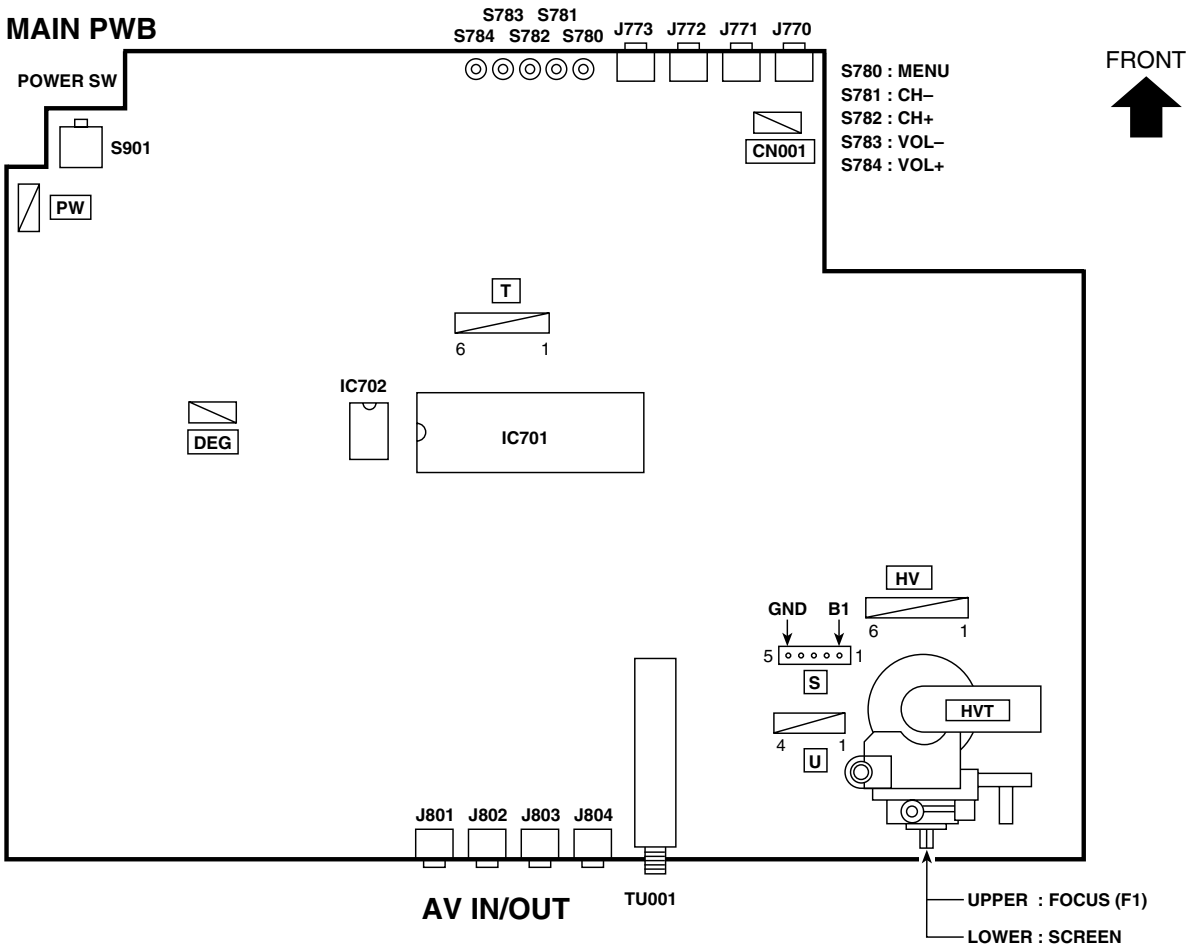
MEASURING INSTRUMENT

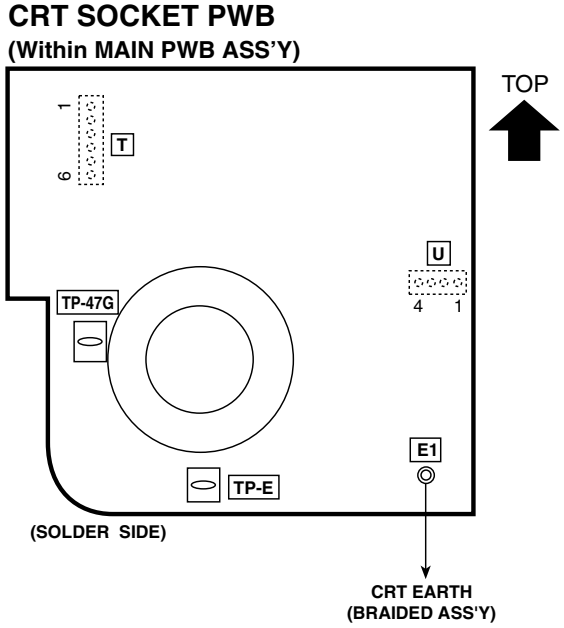
1. DC voltmeter (or Digital voltmeter)
2. Oscilloscope
3. Signal generator (Pattern generator) [PAL/SECAM/NTSC]
4. Remote control unit

ADJUSTMENT ITEMS

- B1 POWER SUPPLY
- FOCUS adjustment
- IF circuit adjustment
  - VCO (CW) adjustment
  - DELAY POINT adjustment
- VC (VIDEO/CHROMA) circuit adjustment
  - WHITE BALANCE (Low light) adjustment
  - WHITE BALANCE (High light) adjustment
  - SUB BRIGHT adjustment
  - SUB CONT adjustment
  - SUB COLOUR adjustment
  - SUB TINT adjustment
- DEFLECTION circuit adjustment
  - VER. SLOPE adjustment
  - VER. POSITION adjustment
  - V. ZOOM adjustment
  - HOR. POSITION adjustment
  - HOR. WIDTH adjustment
  - EW-PIN adjustment
  - EW-TRAPEZ adjustment
  - VER. SCURVE adjustment
  - UP CORNER and DW CORNER adjustment
  - HOR. PARALL adjustment
  - HOR. BOW adjustment
- VSM PRESET adjustment
- PRESET adjustment
- AUDIO adjustment
- PURITY and CONVERGENCE adjustments
  - PURITY adjustment
  - STATIC CONVERGENCE adjustment
  - DYNAMIC CONVERGENCE adjustment

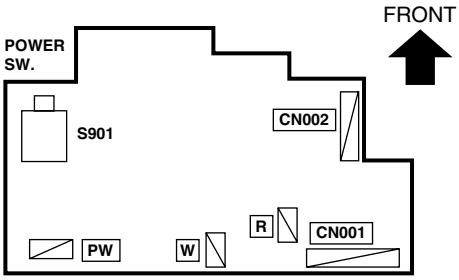
ADJUSTMENT LOCATIONS [AV-21L91-BK, AV-25L91-BK]



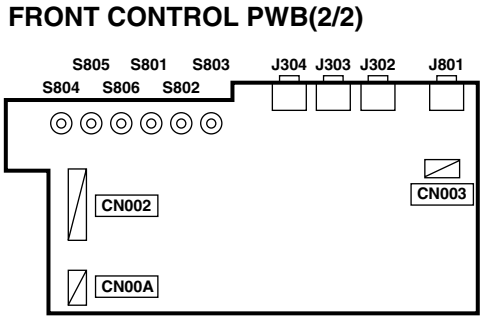


ADJUSTMENT LOCATIONS [AV-29L91-BK]

FRONT CONTROL PWB(1/2)

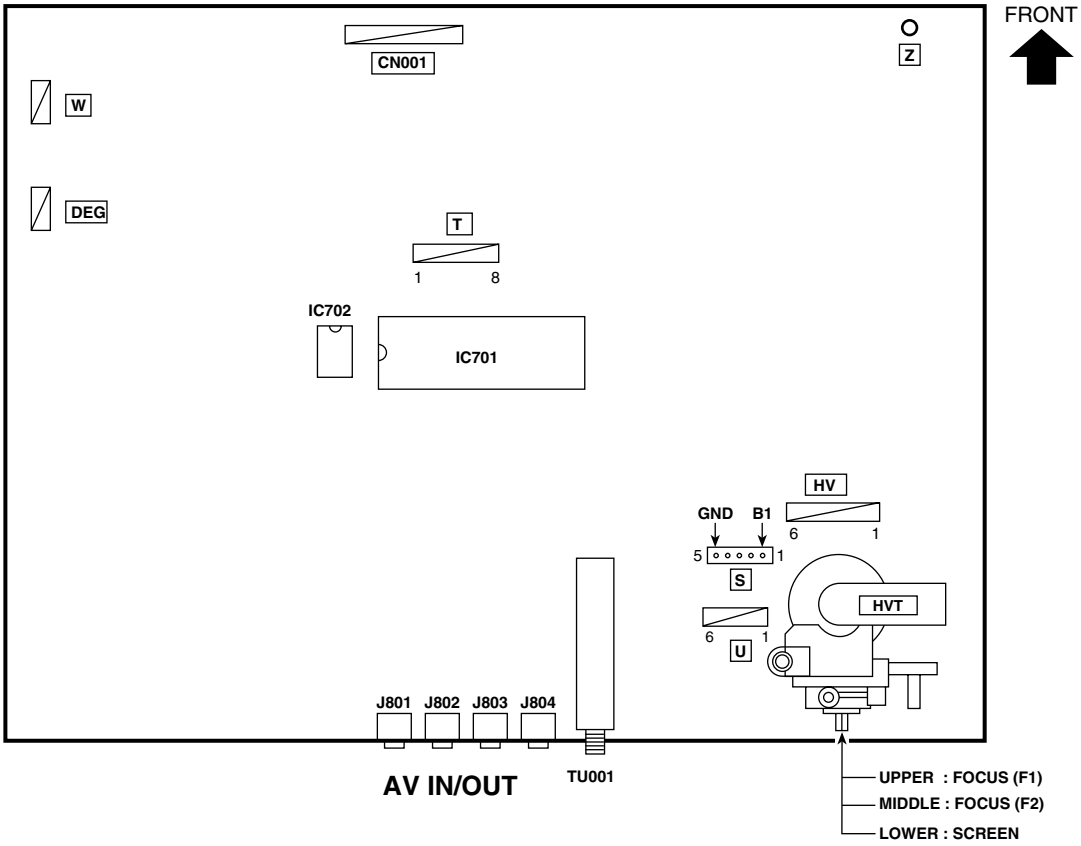


FRONT CONTROL PWB(2/2)

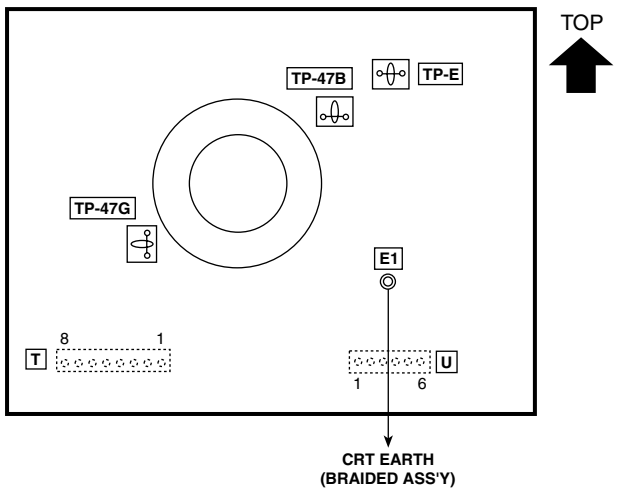


S801 : CH UP +
S802 : CH DOWN –
S803 : MENU
S804 : TV/VIDEO
S805 : VOL UP+
S806 : VOL DOWN –

MAIN PWB



CRT SOCKET PWB (SOLDER SIDE)



BASIC OPERATION IN SERVICE MENU

1. TOOL OF SERVICE MENU OPERATION

Operate the SERVICE MENU with the remote control unit.

2. SERVICE MENU ITEMS

With the SERVICE MENU, various settings (adjustments) can be made, and they are broadly classified in the following items of settings:

- 1.IF ..... For entering/adjusting the setting values (adjustment values) of the IF circuit.
- 2.VC ..... For entering/adjusting the setting values (adjustment values) of the VIDEO/CHROMA circuit.
- 3.DEF ..... For entering/adjusting the setting values (adjustment values) of the DEFLECTION circuit.
- 4.VSM PRESET ..... For setting the values of STANDARD, SOFT and BRIGHT. (VSM:video status memory)
- 5.PRESET ..... For setting the values of the preset.
- 6. AUDIO ..... For entering/adjusting the setting values (adjustment values) of the multiplicity sound circuit.
- 7.PLUG & PLAY (OFF). ..... This is not used for service.

3. BASIC OPERATION IN SERVICE MENU

(1) How to enter SERVICE MENU

Press the DISPLAY key and the PICTURE MODE key on the remote control unit simultaneously.
The SERVICE MENU screen will be displayed. (See Fig. 1 on the next page.)

(2) Selection of SUB MENU SCREEN

Press one of the keys 1 to 7 on the remote control unit, and select the SUB MENU SCREEN from the SERVICE MENU. (See Fig.1 on the next page.)

SERVICE MENU → SUB MENU
1. IF
2. VC
3. DEF
4. VSM PRESET
5. PRESET
6. AUDIO
7. PLUG & PLAY (OFF)

(3) Method of Setting

*Once the setting values are set, they are memorized automatically.
*It must not adjust without inputting a signal.

1) 1. IF

[1.VCO]

(a) 1 Key ..... Select **1.IF**.
(b) 1 Key ..... Select **1.VCO**.
(c) DISPLAY Key ..... When this pressed twice, you will return to the SERVICE MENU.
- Under normal conditions, no adjustment is required.

[2.DELAY POINT]

(a) 1 Key ..... Select **1. IF**.
(b) 2 Key ..... Select **2.DELAY POINT**.
(c) MENU –/+Key ..... Adjust the setting value.
(d) DISPLAY Key ..... When this is pressed twice, you will return to the SERVICE MENU.

2) 2. VC, 3. DEF, 4. VSM PRESET, 5. PRESET and 6. AUDIO

(a) 2 ~5 Keys ..... Select one from **2. VC**, **3. DEF**, **4. VSM PRESET**, **5. PRESET** and **6. AUDIO**.
(b) MENU ▽/△ key ..... Select setting items.
(c) MENU –/+Key ..... Adjust the setting values of the setting items.
- Use the number keys on the remote control unit for setting of WHITE BALANCE. For the setting, refer to each item concerned.

(d) DISPLAY Key ..... When this is pressed, you will return to the SERVICE MENU.

3) 7. PLUG & PLAY (OFF)

This is not used for service.

(4) Release of SERVICE MENU

After completing the setting, return to the SERVICE MENU by pressing the DISPLAY key, then again press the DISPLAY key to return to the normal screen.

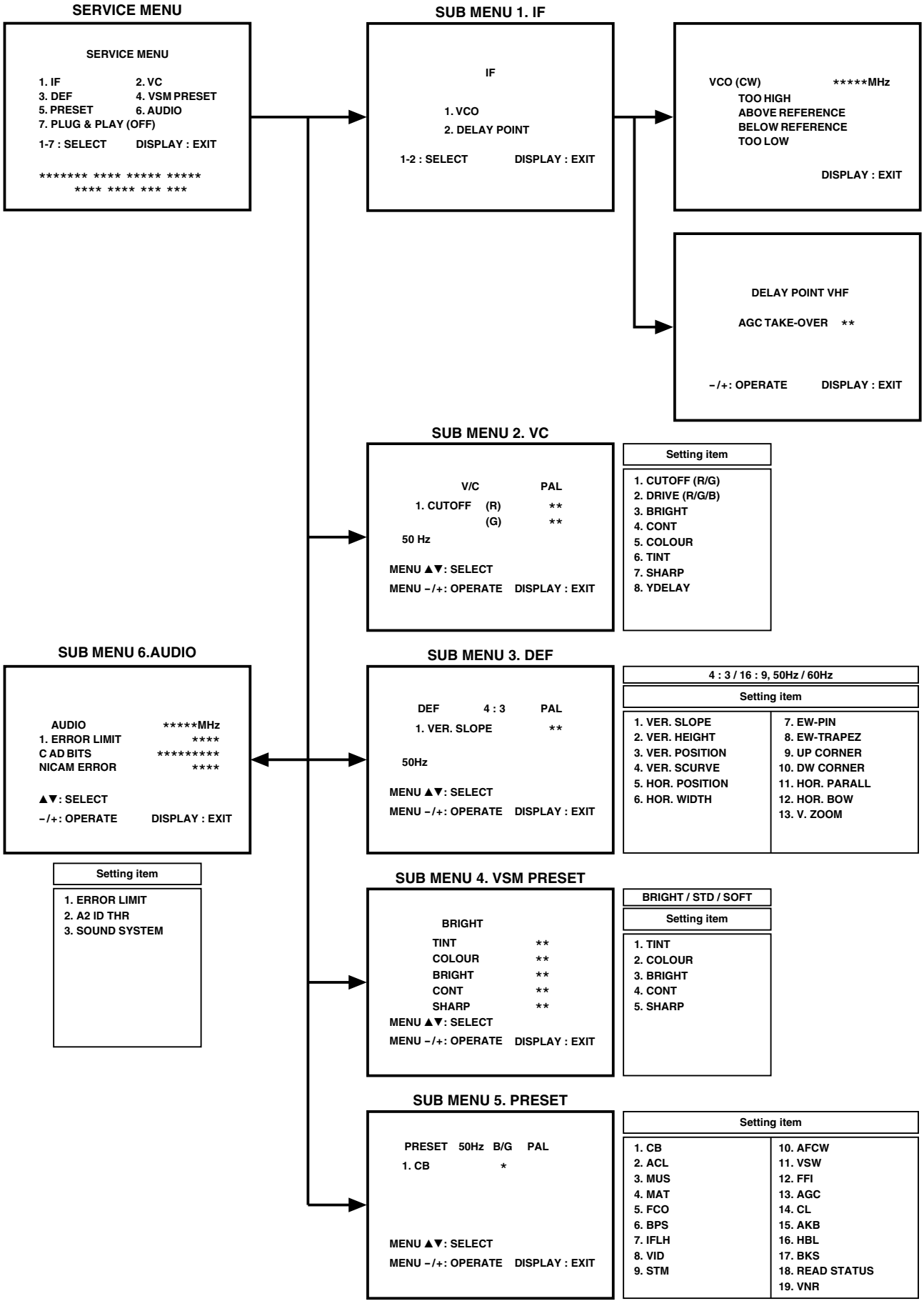

SERVICE MENU
SERVICE MENU
1. IF
2. VC
3. DEF
4. VSM PRESET
5. PRESET
6. AUDIO
7. PLUG & PLAY (OFF)
1-7 : SELECT
DISPLAY : EXIT
******* **** ***** *****
**** **** *** ***
SUB MENU 1. IF
IF
1. VCO
2. DELAY POINT
1-2 : SELECT
DISPLAY : EXIT
VCO (CW)
*****MHz
TOO HIGH
ABOVE REFERENCE
BELOW REFERENCE
TOO LOW
DISPLAY : EXIT
DELAY POINT VHF
AGC TAKE-OVER **
–/+: OPERATE
DISPLAY : EXIT
SUB MENU 2. VC
V/C
PAL
1. CUTOFF (R)
**
(G)
**
50 Hz
MENU ▲▼: SELECT
MENU –/+: OPERATE
DISPLAY : EXIT
Setting item
1. CUTOFF (R/G)
2. DRIVE (R/G/B)
3. BRIGHT
4. CONT
5. COLOUR
6. TINT
7. SHARP
8. YDELAY
SUB MENU 6.AUDIO
AUDIO
*****MHz
1. ERROR LIMIT
****
C AD BITS
****
NICAM ERROR
****
▲▼: SELECT
–/+: OPERATE
DISPLAY : EXIT
Setting item
1. ERROR LIMIT
2. A2 ID THR
3. SOUND SYSTEM
SUB MENU 3. DEF
DEF
4 : 3
PAL
1. VER. SLOPE
**
50Hz
MENU ▲▼: SELECT
MENU –/+: OPERATE
DISPLAY : EXIT
4 : 3 / 16 : 9, 50Hz / 60Hz
Setting item
1. VER. SLOPE
2. VER. HEIGHT
3. VER. POSITION
4. VER. SCURVE
5. HOR. POSITION
6. HOR. WIDTH
7. EW-PIN
8. EW-TRAPEZ
9. UP CORNER
10. DW CORNER
11. HOR. PARALL
12. HOR. BOW
13. V. ZOOM
SUB MENU 4. VSM PRESET
BRIGHT
TINT
**
COLOUR
**
BRIGHT
**
CONT
**
SHARP
**
MENU ▲▼: SELECT
MENU –/+: OPERATE
DISPLAY : EXIT
BRIGHT / STD / SOFT
Setting item
1. TINT
2. COLOUR
3. BRIGHT
4. CONT
5. SHARP
SUB MENU 5. PRESET
PRESET
50Hz
B/G
PAL
1. CB
*
MENU ▲▼: SELECT
MENU –/+: OPERATE
DISPLAY : EXIT
Setting item
1. CB
2. ACL
3. MUS
4. MAT
5. FCO
6. BPS
7. IFLH
8. VID
9. STM
10. AFCW
11. VSW
12. FFI
13. AGC
14. CL
15. AKB
16. HBL
17. BKS
18. READ STATUS
19. VNR

Fig. 1

ADJUSTMENTS

B1 POWER SUPPLY

Item	Measuring instrument	Test point	Adjustment part	Description
Check of B1 POWER SUPPLY	**Signal Generator** **DC Voltmeter**	**B1 (pin 1) GND (pin 5) [CN00S connector]**		1. Receive a black and white signal. 2. Connect a DC voltmeter between B1 and GND (between pins 1 and 5 of the connector CN00S). 3. Make sure that the voltage is as shown below.

	B1 voltage
AV-21L91-BK	DC 135 ± 2V
AV-25L91-BK	
AV-29L91-BK	DC 134.5 ± 2V

FOCUS ADJUSTMENT [AV-21L91-BK, AV-25L91-BK]

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of FOCUS	**Signal generator**		**FOCUS VR [In HVT]**	**Notes:** • Set PICTURE MODE (VSM) to “BRIGHT”. • The final adjustment of CONVERGENCE must be done after the FOCUS adjustment. (CONVERGENCE is changed by FOCUS adjustment.) When makes difference by FOCUS adjustment, should be reconfirming PURITY adjustment. 1. Receive a cross-hatch signal. 2. While looking at the screen centre, adjust the FOCUS VR so that the vertical and horizontal lines will be clear and in fine detail. 3. Make sure that the picture is in focus even when the screen gets darkened.

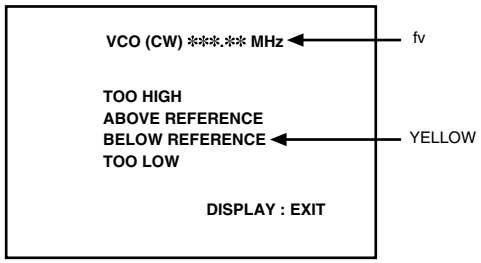
[AV-29L91-BK]

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of FOCUS	**Signal generator**		**FOCUS VR1,2 [In HVT]**	**Notes:** • Proceed to the following this adjustment after having completed the adjustments of B1 POWER SUPPLY, SUB BRIGHT and SUB CONT. • Set PICTURE MODE (VSM) to “BRIGHT”. • The final adjustment of CONVERGENCE must be done after the FOCUS adjustment. (CONVERGENCE is changed by FOCUS adjustment.) When makes difference by FOCUS adjustment, should be reconfirming PURITY adjustment. 1. Receive a cross-hatch signal. 2. While looking at the screen centre, adjust the FOCUS VR2 (F2) so that the horizontal lines will be clear and in fine detail. 3. Adjust the FOCUS VR1 (F1) so that the vertical lines will be clear and in fine detail. 4. Make sure that the picture is in focus even when the screen gets darkened.

IF CIRCUIT ADJUSTMENT

<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td>Adjustment of VCO (CW)</td><td>Remote control unit</td><td></td><td>VCO (CW)</td><td>Note:
• Under normal conditions, no adjustment is required.

1. Select 1. IF from the SERVICE MENU.
2. Select 1. VCO by pressing the 1 key on the remote control unit.
3. Receive a broadcast signal.
4. Check the characters colour of the BELOW REFERENCE displayed to yellow.
5. Press the DISPLAY key three times to return to normal screen.</td></tr>
<tr><td>Adjustment of DELAY POINT</td><td>Remote control unit</td><td></td><td>DELAY POINT (AGC TAKE-OVER)</td><td>1. Receive a black and white broadcast signal (colour off).
2. Select 1. IF from the SERVICE MENU.
3. Select 2. DELAY POINT by pressing the 2 key on the remote control unit.
4. Adjust the MENU –/+ key in order to eliminate any noise or beat from the image. Any increase above the initial value produces noise and any decrease below it produces beat.
5. Press the DISPLAY key three times to return to the normal screen.
6. Turn to other channels and make sure that there are no irregularities.</td></tr>
</table>



Setting (Adjustment time)		Initial setting value
DELAY POINT (AGC TAKE-OVER)	NTSC 3.58	22
	OTHERS	20

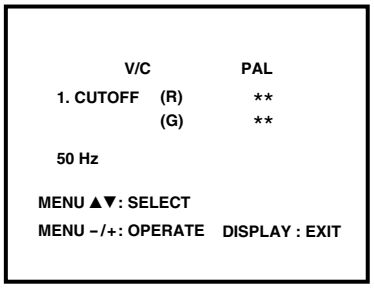
VC (VIDEO/CHROMA) CIRCUIT ADJUSTMENT

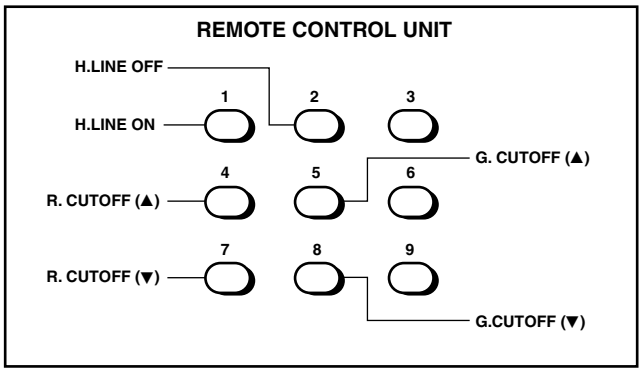
The setting (adjustment) using the remote control unit is made on the basis of the initial setting values.
The setting values which adjust the screen to the optimum condition can be different from the initial setting values.
● Do not change the initial setting values of the setting (adjustment) items not listed in "ADJUSTMENT".

[SUB MENU 2. VC] : **Do not adjust.**

	Setting (Adjustment) item	Variable range	Initial setting value					Remark
			PAL	SECAM	NTSC3.58	NTSC4.43	COMPONENT	
1	CUTOFF (R/G)	-7 – +8	0	←	←	←	←	
2	DRIVE (R/G/B)	-30 – +31	0	←	←	←	←	
3	BRIGHT (COM./TV/V-1/V-2/V-3)	-30 – +31	0/-18/0/0/0	←	←	←	←	AV-21L91-BK AV-25L91-BK
			-1/-16/0/0/0	←	←	←	←	AV-29L91-BK
4	CONT	-30 – +31	-20	←	←	←	—	AV-21L91-BK AV-25L91-BK
			0	←	←	←	—	AV-29L91-BK
5	COLOUR	-30 – +31	-5	-3	-12	-2	+10	AV-21L91-BK
			-5	-3	-12	-6	+10	AV-25L91-BK
			-5	-3	-12	+1	+10	AV-29L91-BK
6	TINT (TV/VIDEO)	-30 – +31	—	—	-15/+4	+1/+1	—	AV-21L91-BK AV-25L91-BK
			—	—	-15/+6	+1/+1	—	AV-29L91-BK
7	SHARP (TV/VIDEO)	-30 – +31	-16/-2	←	←	←	—/0	AV-21L91-BK AV-25L91-BK
			-24/-10	←	←	←	—/0	AV-29L91-BK
8	YDELAY (TV/VIDEO)	-8 – +7	0/+1	+5/+1	0/+1	+5/0	—	

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of WHITE BALANCE (Low light)	**Signal generator** **Remote control unit**		**1. CUTOFF (R)** **CUTOFF (G)** **SCREEN VR [In HVT]**	**Note:** • Set PICTURE MODE (VSM) to "BRIGHT".





1. Receive a PAL black and white signal (colour off).
2. Select **2. VC** from the SERVICE MENU.
3. Select **1. CUTOFF (R)** and **(G)** with MENU ▽/△ key, and set each value to initial setting value with the **4** and **7** keys, or **5** and **8** keys on the remote control unit.
4. Press the **1** key on the remote control unit to produce a single horizontal line.
5. Turn the SCREEN VR fully counterclockwise, then slowly turn it clockwise to where a red, blue or green colour is faintly visible.
6. Use the keys **4** and **7** or **5** and **8** on the remote control unit and adjust the other 2 colours to where the single horizontal line appears white.
7. Turn the SCREEN VR to where the single horizontal line glows faintly.
8. Press the **2** key to return to **1. CUTOFF** screen.
9. Press the DISPLAY key twice to return to the normal screen.

Setting (Adjustment) Item		Variable range	Initial setting value
1. CUT OFF	R	–7 — +8	0
	G	–7 — +8	0

<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td>Adjustment of WHITE BALANCE (High light)</td><td>Signal generator

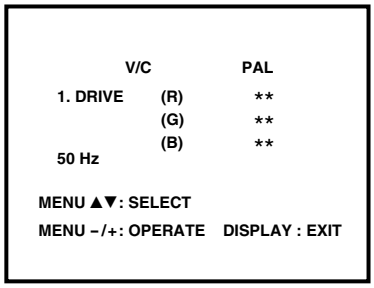
Remote control unit</td><td></td><td>2. DRIVE (R)
DRIVE (G)
DRIVE (B)</td><td>Notes:
• Proceed to the following this adjustment after having completed the adjustment of LOW LIGHT WHITE BALANCE.
• Set PICTURE MODE (VSM) to “BRIGHT”.

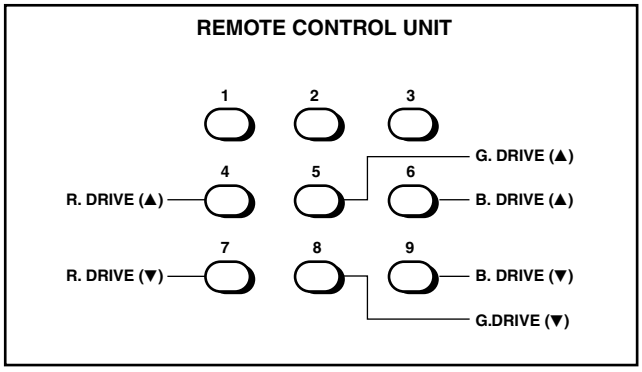
1. Receive a PAL black and white signal (colour off).
2. Select 2. VC from the SERVICE MENU.
3. Select 2. DRIVE (R), (G) and (B) with MENU ▽/△ key,and set each value to initial setting value with the 4 to 9 keys on the remote control unit.
4. Use the keys 4 to 9 to produce a white screen.
5. Press the DISPLAY key twice to return to the normal screen.

<table><tr><th>Setting (Adjustment) Item</th><th></th><th>Variable range</th><th>Initial setting value</th></tr><tr><td rowspan="3">2. DRIVE</td><td>R</td><td>–30 — +31</td><td>0</td></tr><tr><td>G</td><td>–30 — +31</td><td>0</td></tr><tr><td>B</td><td>–30 — +31</td><td>0</td></tr></table></td></tr>
<tr><td>Adjustment of SUB BRIGHT</td><td>Remote control unit</td><td></td><td>3. BRIGHT</td><td>Notes:
• Proceed to the following this adjustment after having completed the adjustments of LOW LIGHT WHITE BALANCE and HIGH LIGHT WHITE BALANCE.
• Set PICTURE MODE (VSM) to “BRIGHT”.

1. Receive a broadcast.
2. Select 2. VC from the SERVICE MENU.
3. Select 3. BRIGHT with the MENU ▽/△ key.
4. Set the initial setting value with the MENU –/+ key.
5. If the brightness is not best with the initial setting value, make fine adjustment until you get the best brightness.
6. Press the DISPLAY key twice to return to the normal screen.</td></tr>
<tr><td>Adjustment of SUB CONT</td><td>Remote control unit</td><td></td><td>4. CONT</td><td>Notes:
• Proceed to the following this adjustment after having completed the adjustment of SUB BRIGHT.
• Set PICTURE MODE (VSM) to “BRIGHT”.

1. Receive a broadcast.
2. Select 2. VC from the SERVICE MENU.
3. Select 4. CONT with the MENU ▽/△ key.
4. Set the initial setting value with the MENU –/+ key.
5. If the contrast is not best with the initial setting value, make fine adjustment until you get the best contrast.
6. Press the DISPLAY key twice to return to the normal screen.</td></tr>
</table>

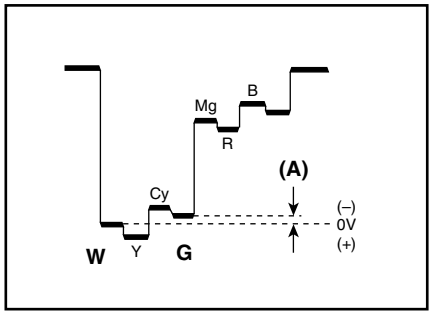




<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td>Adjustment of SUB COLOUR-I</td><td>Remote control unit</td><td></td><td>5. COLOUR</td><td>[Method of adjustment without measuring instrument]
Notes:
• Proceed to the following this adjustment after having completed the adjustment of SUB CONT.
• Set PICTURE MODE (VSM) to “BRIGHT”.
– PAL COLOUR –
1. Receive a PAL broadcast.
2. Select 2. VC from the SERVICE MENU.
3. Select 5. COLOUR with the MENU ▽/△ key.
4. Set the initial setting value for PAL COLOUR with the MENU –/+ key.
5. If the colour is not best with the initial setting value, make fine adjustment until you get the best colour.
6. Press the DISPLAY key twice to return to the normal screen.
– SECAM COLOUR –
7. Receive a SECAM broadcast.
8. Press the COLOUR SYSTEM button on the remote control unit to select the SECAM colour system.
9. Make fine adjustment of SECAM COLOUR in the same way as for “PAL COLOUR”.
– NTSC 3.58 COLOUR –
10. Receive a NTSC 3.58MHz broadcast.
11. Press the COLOUR SYSTEM button on the remote control unit to select the NTSC 3.58 colour system.
12. Make similar fine adjustment of NTSC 3.58 COLOUR in the same way as for “PAL COLOUR”.
– NTSC 4.43 COLOUR –
When adjustment is done for NTSC 3.58 COLOUR, appropriate values are automatically set for NTSC 4.43 COLOUR.</td></tr>
<tr><td>Adjustment of SUB COLOUR-II</td><td>Signal generator

Oscilloscope

Remote control unit</td><td>TP-47G TP-E (⏚) [CRT SOCKET PWB]</td><td>5. COLOUR</td><td>[Method of adjustment using measuring instrument]
Notes:
• Proceed to the following this adjustment after having completed the adjustment of SUB CONT.
• Set PICTURE MODE (VSM) to “BRIGHT”.
– PAL COLOUR –
1. Receive a PAL colour bar signal (full field colour bar 75% white).
2. Select 2. VC from the SERVICE MENU.
3. Select 5. COLOUR with the MENU ▽/△ key.
4. Set the initial setting value of PAL COLOUR with the MENU –/+ key.
5. Connect the oscilloscope between TP-47G and TP-E.
6. Adjust PAL COLOUR to set the value (A) in the figure to the voltage shown in the Table 1.
– SECAM COLOUR –
7. Receive a SECAM colour bar signal (full field colour bar 75% white).
8. Press the COLOUR SYSTEM button on the remote control unit to select the SECAM colour system.
9. Set the initial setting value of SECAM COLOUR with the MENU –/+ key.
10. Adjust SECAM COLOUR to set the value (A) in the figure to the voltage shown in the Table 1.
– NTSC 3.58 COLOUR –
11. Receive a NTSC 3.58 colour bar signal (full field colour bar 75% white).
12. Press the COLOUR SYSTEM button on the remote control unit to select the NTSC 3.58 colour system.
13. Set the initial setting value of NTSC 3.58 COLOUR with the MENU –/+ key.
14. Adjust NTSC 3.58 COLOUR to set the value (A) in the figure to the voltage shown in the Table 1.
– NTSC 4.43 COLOUR –
When adjustment is done for NTSC 3.58 COLOUR, appropriate values are automatically set for NTSC 4.43 COLOUR.</td></tr>
</table>



	A (V_{W-G})		
	PAL	**SECAM**	**NTSC 3.58**
AV-21L91-BK	+14V	+5V	+5V
AV-25L91-BK	+14V	–3V	+3V
AV-29L91-BK	+8V	+2V	+2V

Table 1

<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td>Adjustment of SUB TINT-I</td><td>Remote control unit</td><td></td><td>6. TINT</td><td>[Method of adjustment without measuring instrument]
Notes:
• Proceed to the following this adjustment after having completed the adjustment of SUB CONT.
• Set PICTURE MODE (VSM) to “BRIGHT”.

– NTSC 3.58 TINT –
1. Receive a NTSC 3.58 colour bar signal (full field colour bar 75% white).
2. Press the COLOUR SYSTEM button on the remote control unit to select the NTSC 3.58 colour system.
3. Select 2. VC from the SERVICE MENU.
4. Select 6. TINT with the MENU ▽/△ key.
5. Set the initial setting value of NTSC 3.58 with the MENU –/+ key.
6. If you cannot get the best tint with the initial setting value, make fine adjustment until you get the best tint.
7. Press the DISPLAY key twice to return to the normal screen.

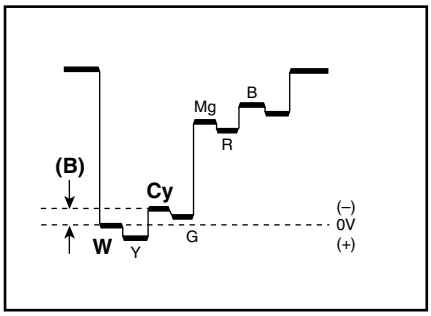
– NTSC 4.43 TINT –
When adjustment is done for NTSC 3.58 TINT, appropriate values are automatically set for NTSC 4.43 TINT.</td></tr>
<tr><td>Adjustment of SUB TINT-II</td><td>Signal generator

Oscilloscope

Remote control unit</td><td>TP-47G
TP-E ()
[CRT SOCKET PWB]</td><td>6. TINT</td><td>[Method of adjustment using measuring instrument]
Notes:
• Proceed to the following this adjustment after having completed the adjustment of SUB CONT.
• Set PICTURE MODE (VSM) to “BRIGHT”.

– NTSC 3.58 TINT –
1. Receive a NTSC 3.58 colour bar signal (full field colour bar 75% white).
2. Press the COLOUR SYSTEM button on the remote control unit to select the NTSC 3.58 colour system.
3. Select 2. VC from the SERVICE MENU.
4. Select 6. TINT with the MENU ▽/△ key.
5. Set the initial setting value of NTSC 3.58 with the MENU –/+ key.
6. Connect the oscilloscope between TP-47G and TP-E.
7. Adjust NTSC 3.58 TINT to set the value (B) in the figure to the voltage shown in the Table 2.
8. Press the DISPLAY key twice to return to the normal screen.

– NTSC 4.43 TINT –
When adjustment is done for NTSC 3.58 TINT, appropriate values are automatically set for NTSC 4.43 TINT.</td></tr>
</table>



	B (V_{W-Cy})
AV-21L91-BK	+6V
AV-25L91-BK	+3V
AV-29L91-BK	0V

Table 2

DEFLECTION CIRCUIT ADJUSTMENT [AV-21L91-BK]

The setting (adjustment) using the remote control unit is made on the basis of the initial setting values.
The setting values which adjust the screen to the optimum condition can be different from the initial setting values.

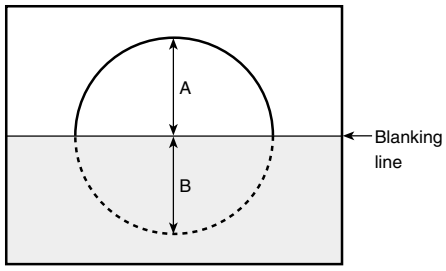
Note:
Proceed to the following this adjustment after having completed the adjustments of SUB BRIGHT and SUB CONT.

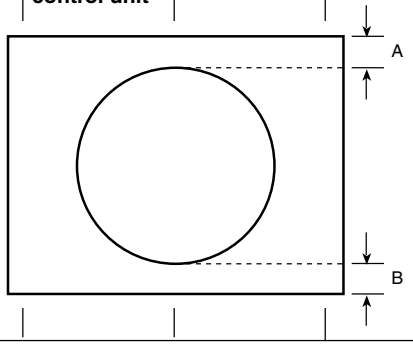
[SUB MENU 3. DEF] **: Do not adjust.**

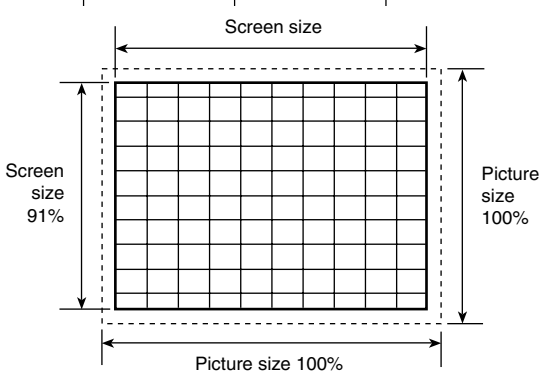
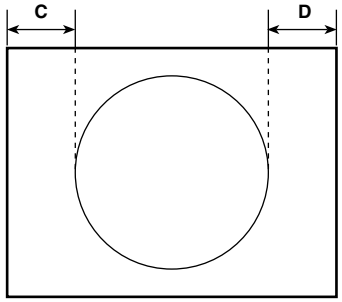
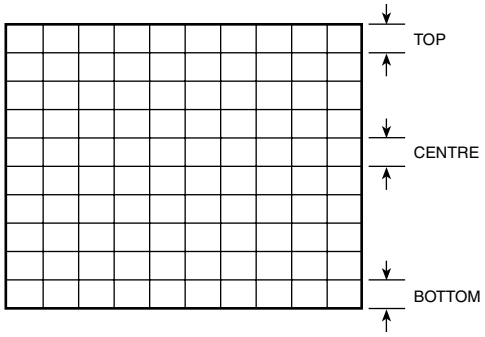
Setting (Adjustment) item	Variable range	Initial setting value				
		4:3		COMPRESS(16:9)		COMPONENT DVD(50Hz/60Hz)
		50Hz	60Hz	50Hz	60Hz	
1. VER. SLOPE	–31 — +31	+3	–1	+3	–1	—
2. VER. HEIGHT	–31 — +31	+31	+9	–32	–31	—
3. VER. POSITION	–31 — +31	+5	0	+5	0	—
4. VER. SCURVE	–31 — +31	–21	–2	–21	–2	—
5. HOR. POSITION	–31 — +31	+3	+10	+3	+10	+7
6. HOR. WIDTH	–31 — +31	+11	–1	+11	–1	—
7. EW-PIN	–31 — +31	–11	0	–13	–12	—
8. EW-TRAPEZ	–31 — +31	+20	0	+20	0	—
9. UP CORNER	–31 — +31	–25	0	0	0	—
10. DW CORNER	–31 — +31	–25	0	0	0	—
11. HOR. PARALL	–31 — +31	–11	0	–11	0	—
12. HOR. BOW	–31 — +31	0	0	0	0	—
13. V.ZOOM	–31 — +31	–1	+1	+14	+14	—

[fv : 50Hz mode]

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of VER. SLOPE	**Signal generator** **Remote control unit**		**1. VER. SLOPE**	1. Receive a PAL circle pattern signal of vertical frequency 50Hz. 2. Select **3. DEF** from the SERVICE MENU. 3. Select **1. VER. SLOPE** with the MENU ▽/△ key. 4. Set the initial setting value of **1. VER. SLOPE** with the MENU –/+ key. 5. Adjust **1. VER. SLOPE** to make "**A = B**" with the MENU –/+ key.
Adjustment of VER.POSITION	**Signal generator** **Remote control unit**		**3. VER. POSITION**	6. Select **3. VER. POSITION** with the MENU ▽/△ key. 7. Set the initial setting value of **3. VER. POSITION** with the MENU –/+ key. 8. Adjust **3. VER. POSITION** to make "**A = B**" with the MENU –/+ key. (to be continued)

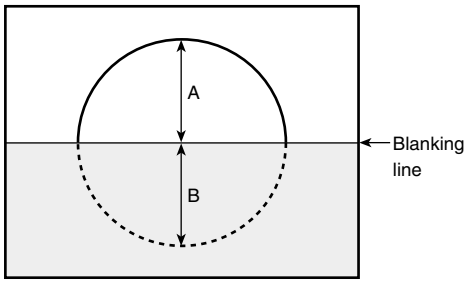


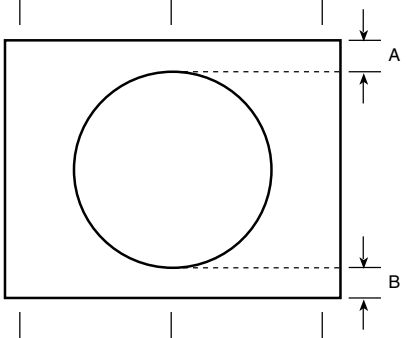


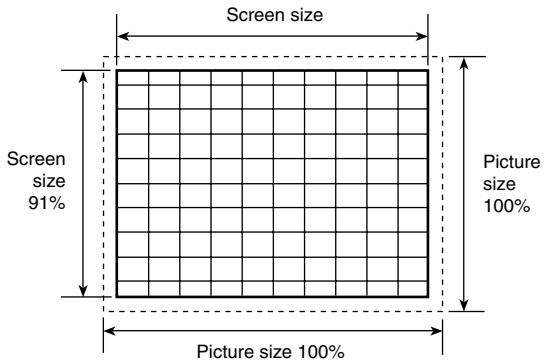
Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of V. ZOOM	**Signal generator** **Remote control unit** 		**2. VER. HEIGHT** **13. V. ZOOM**	9. Receive a PAL cross-hatch signal. 10. Select **2. VER. HEIGHT** with the MENU ▽/△ key. 11. Set the initial setting value of **2. VER. HEIGHT** with the MENU –/+ key. 12. Select **13. V. ZOOM** with the MENU ▽/△ key. 13. Set the initial setting value of **13. V. ZOOM** with the MENU –/+ key. 14. Adjust **13. V. ZOOM** and make the vertical screen size 91% of the picture size with the MENU –/+ key.
Adjustment of HOR. POSITION	**Signal generator** **Remote control unit** 		**5. HOR. POSITION**	15. Receive a PAL circle pattern signal. 16. Select **5. HOR. POSITION** with the MENU ▽/△ key. 17. Set the initial setting value of **5. HOR. POSITION** with the MENU –/+ key. 18 Adjust **5. HOR POSITION** to make "**C=D**" with the MENU –/+ key.
Adjustment of VER. SCURVE	**Signal generator** **Remote control unit** 		**4. VER. SCURVE**	19. Receive a PAL cross-hatch signal. 20. Select **4. VER. SCURVE** with the MENU ▽/△ key. 21. Set the initial setting value of **4. VER. SCURVE** with the MENU –/+ key. 22. Adjust **4. VER. SCURVE** so that the spaces of each line on TOP, CENTRE and BOTTOM become uniform. (to be continued)

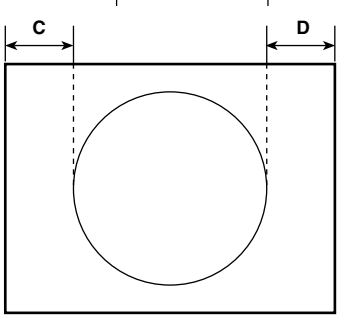
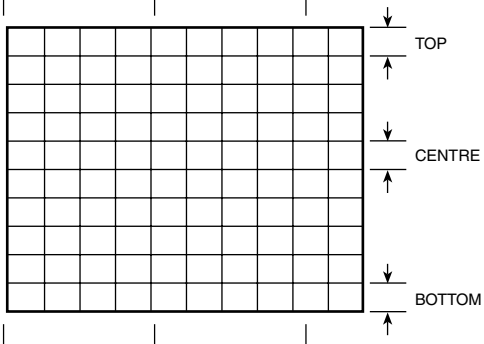
[fv : 60Hz mode]

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of VER. SLOPE	**Signal generator** **Remote control unit**		**1. VER. SLOPE**	1. Receive a NTSC circle pattern signal of vertical frequency 60Hz. 2. Select **3. DEF** from the SERVICE MENU. 3. Select **1. VER. SLOPE** with the MENU ▽/△ key. 4. Set the initial setting value of **1. VER. SLOPE** with the MENU –/+ key. 5. Adjust **1. VER. SLOPE** to make "**A = B**" with the MENU –/+ key.
Adjustment of VER.POSITION	**Signal generator** **Remote control unit**		**3. VER. POSITION**	6. Select **3. VER. POSITION** with the MENU ▽/△ key. 7. Set the initial setting value of **3. VER. POSITION** with the MENU –/+ key. 8. Adjust **3. VER. POSITION** to make "**A = B**" with the MENU –/+ key.
Adjustment of V. ZOOM	**Signal generator** **Remote control unit**		**2. VER. HEIGHT** **13. V. ZOOM**	9. Receive a NTSC cross-hatch signal. 10. Select **2. VER. HEIGHT** with the MENU ▽/△ key. 11. Set the initial setting value of **2. VER. HEIGHT** with the MENU –/+ key. 12. Select **13. V. ZOOM** with the MENU ▽/△ key. 13. Set the initial setting value of **13. V. ZOOM** with the MENU –/+ key. 14. Adjust **13. V. ZOOM** and make the vertical screen size 91% of the picture size with the MENU –/+ key. (to be continued)



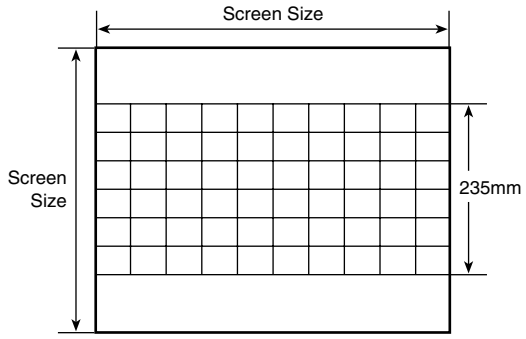




Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of HOR. POSITION	**Signal generator** **Remote control unit** 		**5. HOR. POSITION**	15. Receive a NTSC circle pattern signal. 16. Select **5. HOR. POSITION** with the MENU ▽/△ key. 17. Set the initial setting value of **5. HOR. POSITION** with the MENU –/+ key. 18. Adjust **5. HOR. POSITION** to make “C=D” with the MENU –/+ key.
Adjustment of VER. SCURVE	**Signal generator** **Remote control unit** 		**4. VER. SCURVE**	19. Receive a NTSC cross-hatch signal. 20. Select **4. VER. SCURVE** with the MENU ▽/△ key. 21. Set the initial setting value of **4. VER. SCURVE** with the MENU –/+ key. 22. Adjust **4. VER. SCURVE** so that the spaces of each line on TOP, CENTRE and BOTTOM become uniform.

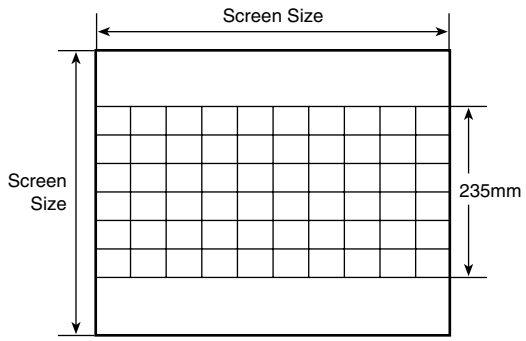
[COMPRESS (16 : 9), fv : 50Hz mode]

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of V. ZOOM and VER. HEIGHT	**Signal generator** **Remote control unit**		**13. V. ZOOM** **2. VER. HEIGHT**	1. Receive a PAL cross-hatch signal of vertical frequency 50Hz. 2. Select COMPRESS from the MENU and set COMPRESS to ON. 3. Select **3. DEF** from the SERVICE MENU. 4. Set the initial setting value of **13. V. ZOOM** with the MENU –/+ key. 5. Select **2. VER. HEIGHT** with the MENU ▽/△ key. 6. Set the initial setting value of **2. VER. HEIGHT** with the MENU –/+ key. 7. Adjust **2. VER. HEIGHT** to set the vertical amplitude of the image to 235mm.

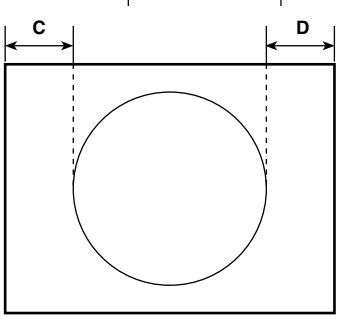


[COMPRESS (16 : 9), fv : 60Hz mode]

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of V. ZOOM and VER. HEIGHT	**Signal generator** **Remote control unit**		**13. V. ZOOM** **2. VER. HEIGHT**	1. Receive a NTSC cross-hatch signal of vertical frequency 60Hz. 2. Select COMPRESS from the MENU and set COMPRESS to ON. 3. Select **3. DEF** from the SERVICE MENU. 4. Set the initial setting value of **13. V. ZOOM** with the MENU –/+ key. 5. Select **2. VER. HEIGHT** with the MENU ▽/△ key. 6. Set the initial setting value of **2. VER. HEIGHT** with the MENU –/+ key. 7. Adjust **2. VER. HEIGHT** to set the vertical amplitude of the image to 235mm.



[COMPONENT, fv : 50/60Hz mode]

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of HOR. POSITION	**Signal generator** **Remote control unit** 		**5. HOR. POSITION**	1. Receive a PAL circle pattern signal to VIDEO-2 terminal. 2. Select VIDEO-2 SET from the MENU and set VIDEO-2 SET to COMPONENT. 3. Select **3. DEF** from the SERVICE MENU. 4. Select **5. HOR. POSITION** with the MENU ▽/△ key. 5. Set the initial setting value of **5. HOR. POSITION** with the MENU –/+ key. 6 Adjust **5. HOR POSITION** to make "**C=D**" with the MENU –/+ key. 7. Press the DISPLAY key twice to return to the normal screen.

DEFLECTION CIRCUIT ADJUSTMENT [AV-25L91-BK, AV-29L91-BK]

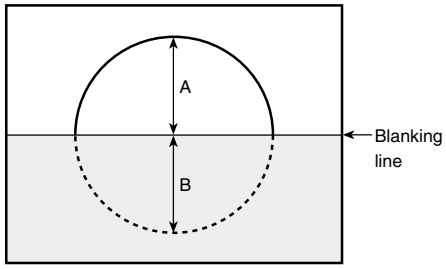
The setting (adjustment) using the remote control unit is made on the basis of the initial setting values.
The setting values which adjust the screen to the optimum condition can be different from the initial setting values.

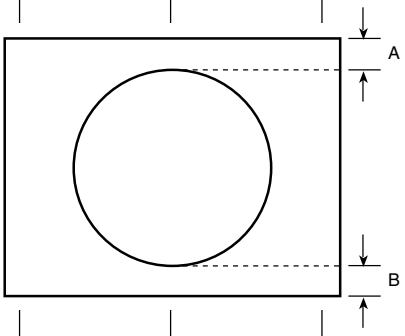
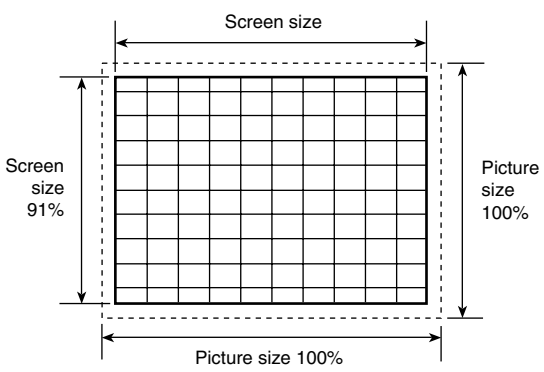
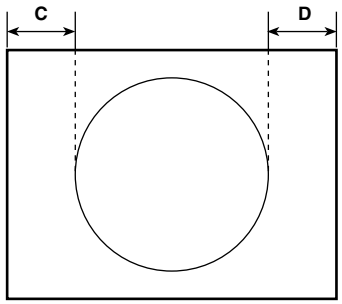
Note:
Proceed to the following this adjustment after having completed the adjustments of SUB BRIGHT and SUB CONT.

[SUB MENU 3. DEF]

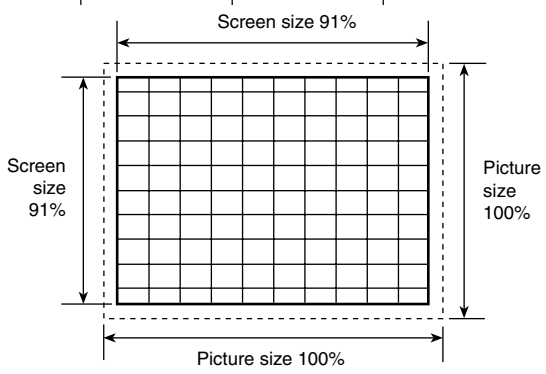
Setting (Adjustment) item	Variablerange	Initial setting value								COMPONENT DVD (50Hz/60Hz)
		4:3				COMPRESS (16:9)				
		50Hz		60Hz		50Hz		60Hz		
		25”	29”	25”	29”	25”	29”	25”	29”	
1. VER. SLOPE	–31 — +31	+6	+3	–1	0	+6	—	–1	—	—
2. VER. HEIGHT	–31 — +31	+31	+31	+30	0	–25	–29	–25	–24	—
3. VER. POSITION	–31 — +31	–2	+2	0	–1	–2	—	0	—	—
4. VER. SCURVE	–31 — +31	–21	–21	–2	0	–21	—	–2	—	—
5. HOR. POSITION	–31 — +31	+6	–4	+6	+7	+6	—	+6	—	+7
6. HOR. WIDTH	–31 — +31	+10	+11	+2	–1	+10	—	+2	—	—
7. EW-PIN	–31 — +31	+25	–11	–1	–1	–32	–13	–32	–12	—
8. EW-TRAPEZ	–31 — +31	–4	0	0	0	–4	—	0	—	—
9. UP CORNER	–31 — +31	–4	–25	0	0	–1	0	–24	0	—
10. DW CORNER	–31 — +31	–4	–25	0	0	–2	0	+1	0	—
11. HOR. PARALL	–31 — +31	+3	0	0	0	+3	—	00	—	—
12. HOR. BOW	–31 — +31	+1	0	0	0	+1	—	0	—	—
13. V.ZOOM	–31 — +31	+1	–1	+2	–1	+11	+14	+10	+6	—

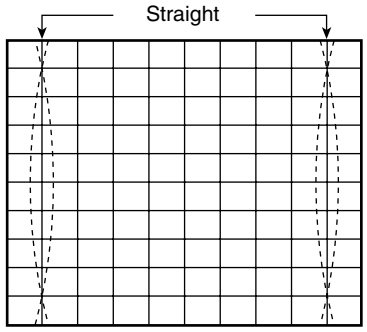
[fv : 50Hz mode]

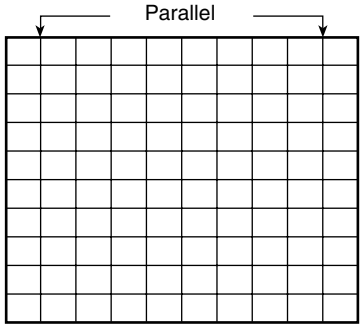
Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of VER. SLOPE	**Signal generator** **Remote control unit**		**1. VER. SLOPE**	1. Receive a PAL circle pattern signal of vertical frequency 50Hz. 2. Select **3. DEF** from the SERVICE MENU. 3. Select **1. VER. SLOPE** with the MENU ▽/△ key. 4. Set the initial setting value of **1. VER. SLOPE** with the MENU –/+ key. 5. Adjust **1. VER. SLOPE** to make “**A = B**” with the MENU –/+ key.  (to be continued)

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of VER.POSITION	**Signal generator** **Remote control unit** 		**3. VER. POSITION**	6. Select **3. VER. POSITION** with the MENU ▽/△ key. 7. Set the initial setting value of **3. VER. POSITION** with the MENU –/+ key. 8. Adjust **3. VER. POSITION** to make "**A = B**" with the MENU –/+ key.
Adjustment of V. ZOOM	**Signal generator** **Remote control unit** 		**2. VER. HEIGHT** **13. V. ZOOM**	9. Receive a PAL cross-hatch signal. 10. Select **2. VER. HEIGHT** with the MENU ▽/△ key. 11. Set the initial setting value of **2. VER. HEIGHT** with the MENU –/+ key. 12. Select **13. V. ZOOM** with the MENU ▽/△ key. 13. Set the initial setting value of **13. V. ZOOM** with the MENU –/+ key. 14. Adjust **13. V. ZOOM** and make the vertical screen size 91% of the picture size with the MENU –/+ key.
Adjustment of HOR. POSITION	**Signal generator** **Remote control unit** 		**5. HOR. POSITION**	15. Receive a PAL circle pattern signal. 16. Select **5. HOR. POSITION** with the MENU ▽/△ key. 17. Set the initial setting value of **5. HOR. POSITION** with the MENU –/+ key. 18 Adjust **5. HOR POSITION** to make "**C=D**" with the MENU –/+ key. (to be continued)

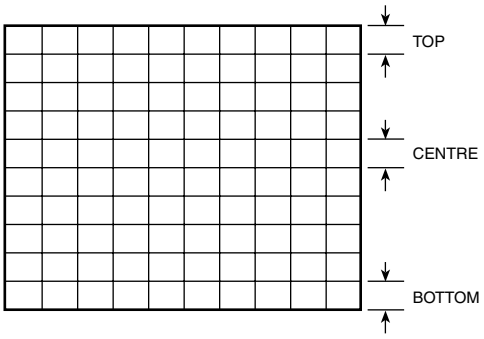
Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of HOR. WIDTH	**Signal generator** **Remote control unit**		**6. HOR. WIDTH**	19. Receive a PAL cross-hatch signal. 20. Select **6. HOR. WIDTH** with the MENU ▽/△ key. 21. Set the initial setting value of **6. HOR. WIDTH** with the MENU –/+ key. 22. Adjust **6. HOR. WIDTH** and make the horizontal screen size 91% of the picture size with the MENU –/+ key.
Adjustment of EW-PIN	**Signal generator** **Remote control unit**		**7. EW-PIN**	23. Select **7. EW-PIN** with the MENU ▽/△ key. 24. Set the initial setting value of **7. EW-PIN** with the MENU –/+ key. 25. Adjust **7. EW-PIN** so that the first vertical lines at the left and right edges on the screen are straight.
Adjustment of EW-TRAPEZ	**Signal generator** **Remote control unit**		**8. EW-TRAPEZ**	26. Select **8. EW-TRAPEZ** with the MENU ▽/△ key. 27. Set the initial setting value of **8. EW-TRAPEZ** with the MENU –/+ key. 28. Adjust **8. EW-TRAPEZ** so that the vertical lines at the left and right edges on the screen are in parallel. (to be continued)

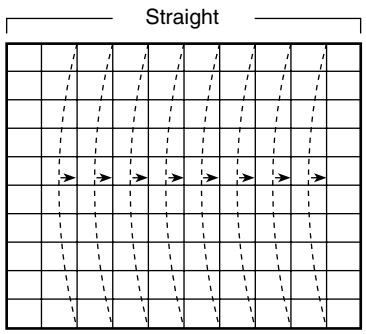






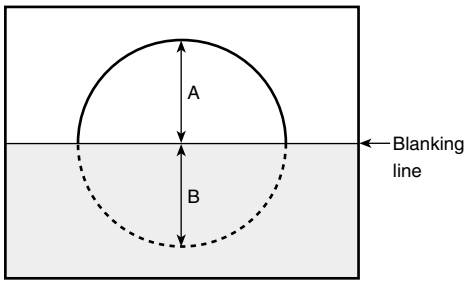
Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of VER. SCURVE	**Signal generator** **Remote control unit**		**4. VER. SCURVE**	29. Select **4. VER. SCURVE** with the MENU ▽/△ key. 30. Set the initial setting value of **4. VER. SCURVE** with the MENU –/+ key. 31. Adjust **4. VER. SCURVE** so that the spaces of each line on TOP, CENTRE and BOTTOM become uniform.
Adjustment of UP CORNER and DW CORNER	**Signal generator** **Remote control unit**		**9. UP CORNER** **10. DW CORNER**	32. Select **9. UP CORNER** with the MENU ▽/△ key. 33. Set the initial setting value of **9. UP CORNER** with the MENU –/+ key. 34. Select **10. DW CORNER** with the MENU ▽/△ key. 35. Set the initial setting value of **10. DW CORNER** with the MENU –/+ key. 36. Adjust **9. UP CORNER** and **10. DW CORNER** so that the vertical lines at the four corners on the screen are straight.
Adjustment of HOR. PARALL	**Signal generator** **Remote control unit**		**11. HOR. PARALL**	37. Select **11. HOR. PARALL** with the MENU ▽/△ key. 38. Set the initial setting value of **11. HOR. PARALL** with the MENU –/+ key. 39. Adjust **11. HOR. PARALL** to optimize the parallelogram distortion.
Adjustment of HOR. BOW	**Signal generator** **Remote control unit**		**12. HOR. BOW**	40. Select **12. HOR. BOW** with the MENU ▽/△ key. 41. Set the initial setting value of Select **12. HOR. BOW** with the MENU –/+ key. 42. Adjust **12. HOR. BOW** to optimize the horizontal arc distortion. 43. Press the DISPLAY key twice to return to the normal screen.

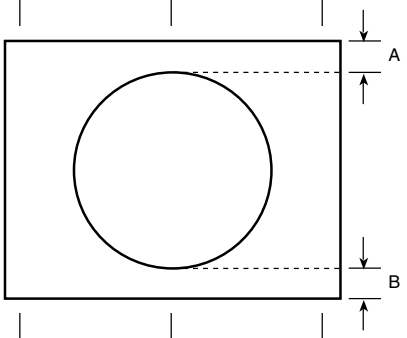


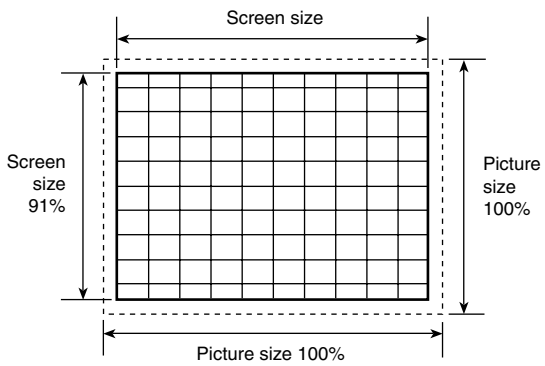


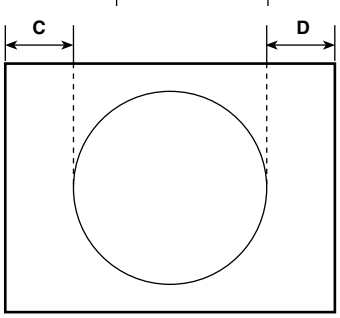
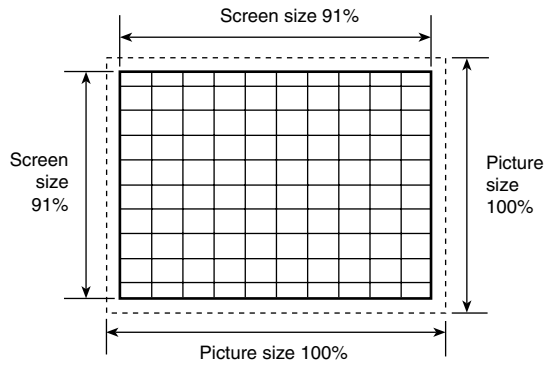
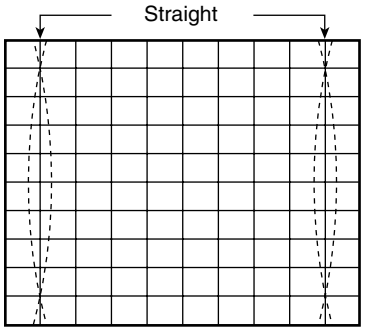
[fv : 60Hz mode]

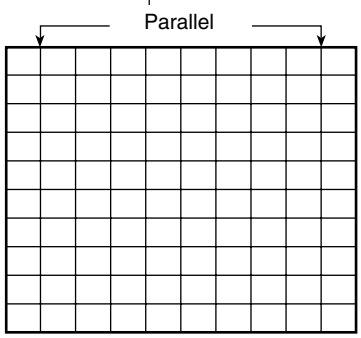
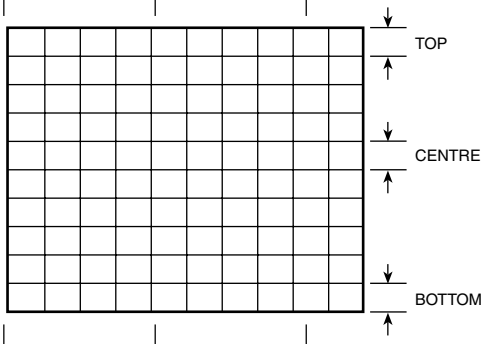
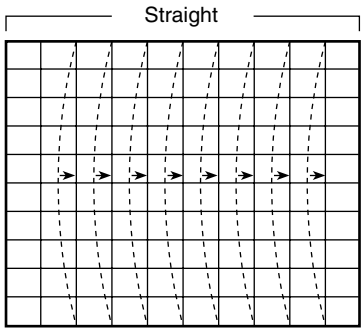
Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of VER. SLOPE	**Signal generator** **Remote control unit**		**1. VER. SLOPE**	1. Receive a NTSC circle pattern signal of vertical frequency 60Hz. 2. Select **3. DEF** from the SERVICE MENU. 3. Select **1. VER. SLOPE** with the MENU ▽/△ key. 4. Set the initial setting value of **1. VER. SLOPE** with the MENU –/+ key. 5. Adjust **1. VER. SLOPE** to make "**A = B**" with the MENU –/+ key.
Adjustment of VER.POSITION	**Signal generator** **Remote control unit**		**3. VER. POSITION**	6. Select **3. VER. POSITION** with the MENU ▽/△ key. 7. Set the initial setting value of **3. VER. POSITION** with the MENU –/+ key. 8. Adjust **3. VER. POSITION** to make "**A = B**" with the MENU –/+ key.
Adjustment of V. ZOOM	**Signal generator** **Remote control unit**		**2. VER. HEIGHT** **13. V. ZOOM**	9. Receive a NTSC cross-hatch signal. 10. Select **2. VER. HEIGHT** with the MENU ▽/△ key. 11. Set the initial setting value of **2. VER. HEIGHT** with the MENU –/+ key. 12. Select **13. V. ZOOM** with the MENU ▽/△ key. 13. Set the initial setting value of **13. V. ZOOM** with the MENU –/+ key. 14. Adjust **13. V. ZOOM** and make the vertical screen size 91% of the picture size with the MENU –/+ key. (to be continued)







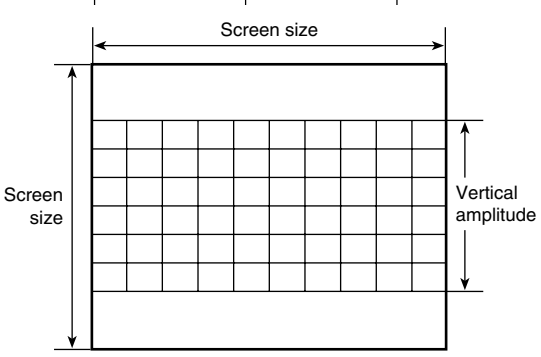
Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of HOR. POSITION	**Signal generator** **Remote control unit** 		**5. HOR. POSITION**	15. Receive a NTSC circle pattern signal. 16. Select **5. HOR. POSITION** with the MENU ▽/△ key. 17. Set the initial setting value of **5. HOR. POSITION** with the MENU –/+ key. 18. Adjust **5. HOR. POSITION** to make “C=D” with the MENU –/+ key.
Adjustment of HOR. WIDTH	**Signal generator** **Remote control unit** 		**6. HOR. WIDTH**	19. Receive a NTSC cross-hatch signal. 20. Select **6. HOR. WIDTH** with the MENU ▽/△ key. 21. Set the initial setting value of **6. HOR. WIDTH** with the MENU –/+ key. 22. Adjust **6. HOR. WIDTH** and make the horizontal screen size 91% of the picture size with the MENU –/+ key.
Adjustment of EW-PIN	**Signal generator** **Remote control unit** 		**7. EW-PIN**	23. Select **7. EW-PIN** with the MENU ▽/△ key. 24. Set the initial setting value of **7. EW-PIN** with the MENU –/+ key. 25. Adjust **7. EW-PIN** so that the first vertical lines at the left and right edges on the screen are straight. (to be continued)

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of EW-TRAPEZ	**Signal generator** **Remote control unit**		**8. EW-TRAPEZ**	26. Select **8. EW-TRAPEZ** with the MENU ▽/△ key. 27. Set the initial setting value of **8. EW-TRAPEZ** with the MENU –/+ key. 28. Adjust **8. EW-TRAPEZ** so that the vertical lines at the left and right edges on the screen are in parallel.
Adjustment of VER. SCURVE	**Signal generator** **Remote control unit**		**4. VER. SCURVE**	29. Select **4. VER. SCURVE** with the MENU ▽/△ key. 30. Set the initial setting value of **4. VER. SCURVE** with the MENU –/+ key. 31. Adjust **4. VER. SCURVE** so that the spaces of each line on TOP, CENTRE and BOTTOM become uniform.
Adjustment of UP CORNER and DW CORNER	**Signal generator** **Remote control unit**		**9. UP CORNER** **10. DW CORNER**	32. Select **9. UP CORNER** with the MENU ▽/△ key. 33. Set the initial setting value of **9. UP CORNER** with the MENU –/+ key. 34. Sekect **10. DW CORNER** with the MENU ▽/△ key. 35. Set the initial setting value of **10. DW CORNER** with the MENU –/+ key. 36. Adjust **9. UP CORNER** and **10. DW CORNER** so that the vertical lines at the four corners on the screen are straight.
Adjustment of HOR. PARALL	**Signal generator** **Remote control unit**		**11. HOR. PARALL**	37. Select **11. HOR. PARALL** with the MENU ▽/△ key. 38. Set the initial setting value of **11. HOR. PARALL** with the MENU –/+ key. 39. Adjust **11. HOR. PARALL** to optimize the parallelogram distortion.
Adjustment of HOR. BOW	**Signal generator** **Remote control unit**		**12. HOR. BOW**	40. Select **12. HOR. BOW** with the MENU ▽/△ key. 41. Set the initial setting value of Select **12. HOR. BOW** with the MENU –/+ key. 42. Adjust **12. HOR. BOW** to optimize the horizontal arc distortion. 43. Press the DISPLAY key twice to return to the normal screen.

[COMPRESS (16 : 9), fv : 50Hz mode]

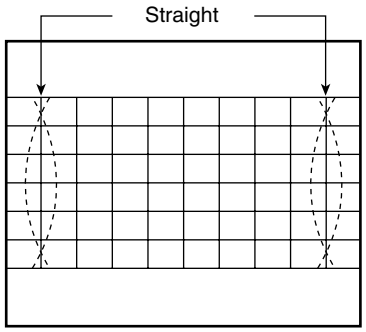
<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td>Adjustment of V. ZOOM and VER. HEIGHT</td><td>Signal generator

Remote control unit</td><td></td><td>13. V. ZOOM
2. VER. HEIGHT</td><td>1. Receive a PAL cross-hatch signal of vertical frequency 50Hz.
2. Select COMPRESS from the MENU and set COMPRESS to ON.
3. Select 3. DEF from the SERVICE MENU.
4. Set the initial setting value of 13. V. ZOOM with the MENU –/+ key.
5. Select 2. VER. HEIGHT with the MENU ▽/△ key.
6. Set the initial setting value of 2. VER. HEIGHT with the MENU –/+ key.
7. Adjust 2. VER. HEIGHT to set the vertical amplitude of the image to the value shown in the Table 3.

<table><tr><th></th><th>Vertical amplitude</th></tr><tr><td>AV-25L91-BK</td><td>275mm</td></tr><tr><td>AV-29L91-BK</td><td>295mm</td></tr></table>Table 3</td></tr>
<tr><td>Adjustment of EW-PIN</td><td>Signal generator

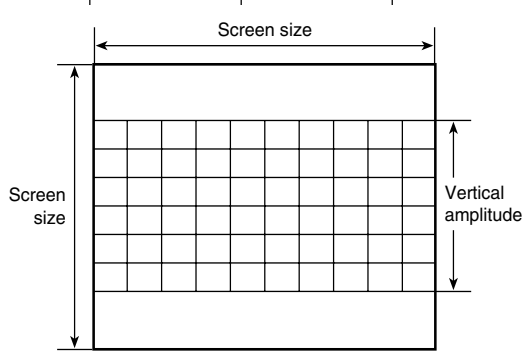
Remote control unit</td><td></td><td>7. EW-PIN</td><td>8. Select 7. EW-PIN with the MENU ▽/△ key.
9. Set the initial setting value of 7. EW-PIN with the MENU –/+ key.
10. Adjust 7. EW-PIN so tha the first vertical lines at the left and right edges on the screen are straight.

 
</td></tr>
<tr><td>Adjustment of UP CORNER and DW CORNER</td><td>Signal generator

Remote control unit</td><td></td><td>9. UP CORNER
10. DW CORNER</td><td>11. Select 9. UP CORNER with the MENU ▽/△ key.
12. Set the initial setting value of 9. UP CORNER with the MENU –/+ key.
13. Select 10. DW CORNER with the MENU ▽/△ key.
14. Set the initial setting value of 10. DW CORNER with the MENU –/+ key.
15. Adjust 9. UP CORNER and 10. DW CORNER so that the vertical lines at the four corners on the screen are straight.
16. Press the DISPLAY key twice to return to the normal screen.</td></tr>
</table>

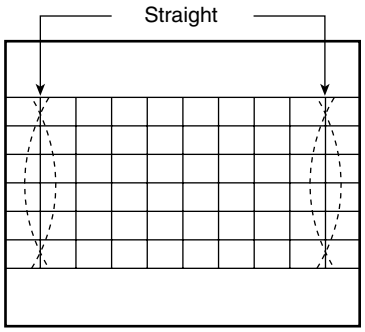
[COMPRESS (16 : 9), fv : 60Hz mode]

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of V. ZOOM and VER. HEIGHT	**Signal generator** **Remote control unit**		**13. V. ZOOM** **2. VER. HEIGHT**	1. Receive a NTSC cross-hatch signal of vertical frequency 60Hz. 2. Select COMPRESS from the MENU and set COMPRESS to ON. 3. Select **3. DEF** from the SERVICE MENU. 4. Set the initial setting value of **13. V. ZOOM** with the MENU –/+ key. 5. Select **2. VER. HEIGHT** with the MENU ▽/△ key. 6. Set the initial setting value of **2. VER. HEIGHT** with the MENU –/+ key. 7. Adjust **2. VER. HEIGHT** to set the vertical amplitude of the image to the value shown in the Table 4.
Adjustment of EW-PIN	**Signal generator** **Remote control unit**		**7. EW-PIN**	8. Select **7. EW-PIN** with the MENU ▽/△ key. 9. Set the initial setting value of **7. EW-PIN** with the MENU –/+ key. 10. Adjust **7. EW-PIN** so tha the first vertical lines at the left and right edges on the screen are straight.
Adjustment of UP CORNER and DW CORNER	**Signal generator** **Remote control unit**		**9. UP CORNER** **10. DW CORNER**	11. Select **9. UP CORNER** with the MENU ▽/△ key. 12. Set the initial setting value of **9. UP CORNER** with the MENU –/+ key. 13. Select **10. DW CORNER** with the MENU ▽/△ key. 14. Set the initial setting value of **10. DW CORNER** with the MENU –/+ key. 15. Adjust **9. UP CORNER** and **10. DW CORNER** so that the vertical lines at the four corners on the screen are straight. 16. Press the DISPLAY key twice to return to the normal screen.

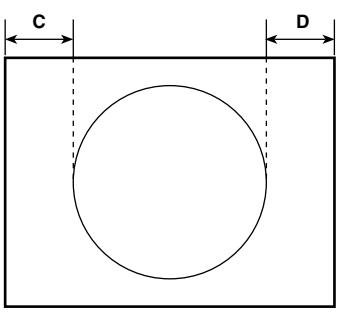


	Vertical amplitude
AV-25L91-BK	275mm
AV-29L91-BK	295mm

Table 4



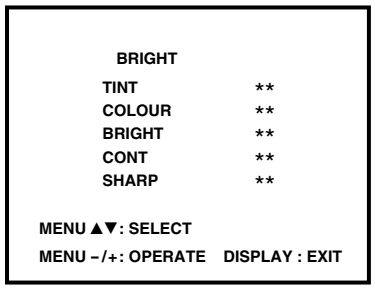
[COMPONENT, fv : 50/60Hz mode]

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of HOR. POSITION	**Signal generator** **Remote control unit** 		**5. HOR. POSITION**	1. Receive a PAL circle pattern signal to VIDEO-2 terminal. 2. Select VIDEO-2 SET from the MENU and set VIDEO-2 SET to COMPONENT. 3. Select **3. DEF** from the SERVICE MENU. 4. Select **5. HOR. POSITION** with the MENU ▽/△ key. 5. Set the initial setting value of **5. HOR. POSITION** with the MENU –/+ key. 6 Adjust **5. HOR POSITION** to make "**C=D**" with the MENU –/+ key. 7. Press the DISPLAY key twice to return to the normal screen.

VSM PRESET ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
Setting of VSM PRESET	**Remote control unit**		**1. TINT** **2. COLOUR** **3. BRIGHT** **4. CONT** **5. SHARP**	1. Select **4. VSM PRESET** from the SERVICE MENU. 2. Select BRIGHT with the PICTURE MODE key. 3. Adjust the MENU ▽/△ key and MENU –/+ key to reset the set values of **1. TINT – 5. SHARP** to the values shown in the Table 5. 4. Respectively select the VSM PRESET mode for SOFT and STANDARD, and make similar adjustment as in 3 above. 5. Press the DISPLAY key twice to return to the normal screen.

SUB MENU 4. VSM PRESET



[Setting Values for SUB MENU 4. VSM PRESET]

VSM preset mode / VSM Setting item	BRIGHT	STANDARD	SOFT
1. TINT SETTING VALUE	15	←	←
2. COLOUR SETTING VALUE	15	←	←
3. BRIGHT SETTING VALUE	15	←	←
4. CONT SETTING VALUE	30	15	11
5. SHARP SETTING VALUE	15	←	0

Table 5

PRESET ADJUSTMENT

● Do not adjust 5. PRESET in the SERVICE MENU as it requires no adjustment.

[SUB MENU 5. PRESET]

	Setting item	Variable range	Initial setting value		
			AV-21L91-BK	AV-25L91-BK	AV-29L91-BK
1	CB	0/1	0	0	0
2	ACL	0/1	0	0	0
3	MUS	0/1	0	0	0
4	MAT	0/1	0	0	0
5	FCO	0/1	0	0	0
6	BPS	0/1	0	0	0
7	IFLH	0/1	0	0	0
8	VID	0/1	0	0	0
9	STM	0/1	0	0	0
10	AFCW	0/1	0	0	0
11	VSW	0/1	0	0	0
12	FFI	0/1	0	0	0
13	AGC	00/10/01	10	10	10
14	CL	50 – 95	80	83	77
15	AKB	0/1	0	0	0
16	HBL	0/1	0	0	0
17	BKS	0/1	1	1	1
18	READ STATUS	—	—	—	—
19	VNR	00 – 63	25	25	25

AUDIO ADJUSTMENT

● Do not adjust 6. AUDIO (1.ERROR LIMIT, 2.A2 ID THR, 3.SOUND SYSTEM) in the SERVICE MENU as it requires no adjustment.

[SUB MENU 6. AUDIO]

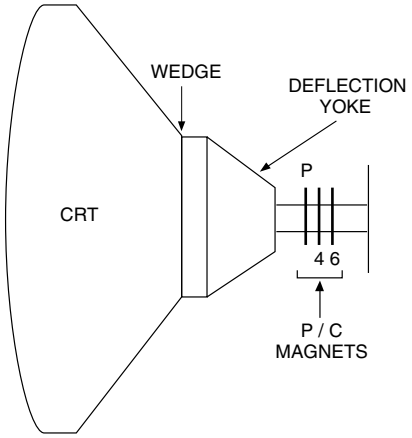
Setting item		Variable range	Initial setting value (fixed)
1. ERROR LIMIT	**(Do not adjust.)**	000H — FF0H	100H
2. A2 ID THR	**(Do not adjust.)**	00H — FFH	0AH
3. SOUND SYSTEM	**(Do not adjust.)**	—	—

PURITY AND CONVERGENCE ADJUSTMENTS

Note: The final adjustment of CONVERGENCE must be done after the FOCUS adjustment. (CONVERGENCE is changed by FOCUS adjustment.)
When makes difference by FOCUS adjustment, should be reconfirming PURITY adjustment.

PURITY ADJUSTMENT

1. Demagnetize CRT with the demagnetizer.
2. Loosen the retainer screw of the deflection yoke.
3. Remove the wedges.
4. Input a green raster signal from the signal generator, and turn the screen to green raster.
5. Move the deflection yoke backward.
6. Bring the long lug of the purity magnets on the short lug and position them horizontally. (Fig. 2)
7. Adjust the gap between two lugs so that the GREEN RASTER will come into the centre of the screen. (Fig. 3)
8. Move the deflection yoke forward, and fix the position of the deflection yoke so that the whole screen will become green.
9. Insert the wedge to the top side of the deflection yoke so that it will not move.
10. Input a crosshatch signal.
11. Verify that the screen is horizontal.
12. Input red and blue raster signals, and make sure that purity is properly adjusted.



• P/C MAGNETS

P : PURITY MAGNET
4 : 4 POLES (convergence magnets)
6 : 6 POLES (convergence magnets)

Fig. 1

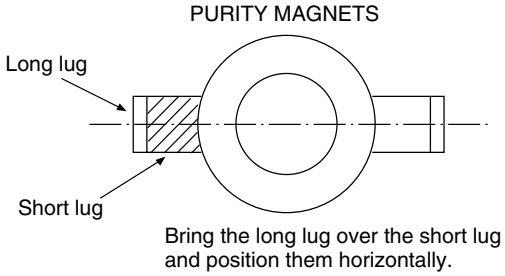


Fig. 2

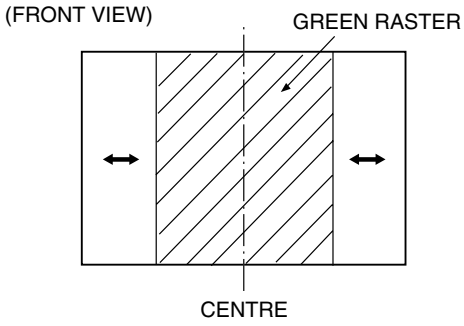


Fig. 3

STATIC CONVERGENCE ADJUSTMENT [AV-21L91-BK]

1. Input a crosshatch signal.
2. Using 4-pole convergence magnets, overlap the red and blue lines in the centre of the screen (Fig. 4) and turn them to magenta (red/blue).
3. Using 6-pole convergence magnets, overlap the magenta(red/blue) and green lines in the centre of the screen and turn them to white.
4. Repeat 2 and 3 above, and make best convergence.

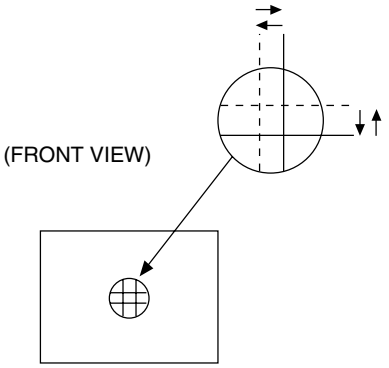


Fig. 4

DYNAMIC CONVERGENCE ADJUSTMENT [AV-21L91-BK]

1. Move the deflection yoke up and down and overlap the lines in the periphery. (Fig. 5)
2. Move the deflection yoke left to right and overlap the lines in the periphery. (Fig. 6)
3. Repeat 1 and 2 above, and make best convergence.

- After adjustment, fix the wedge at the original position.
  Fasten the retainer screw of the deflection yoke.
  Fix the 6 magnets with glue.

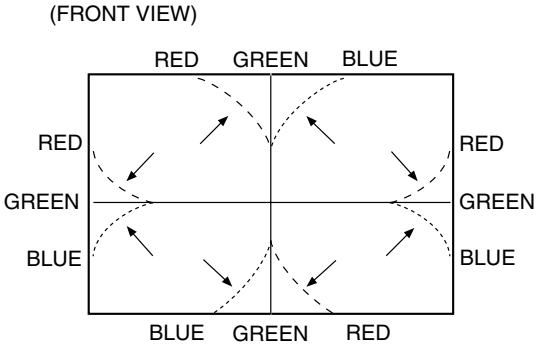


Fig. 5

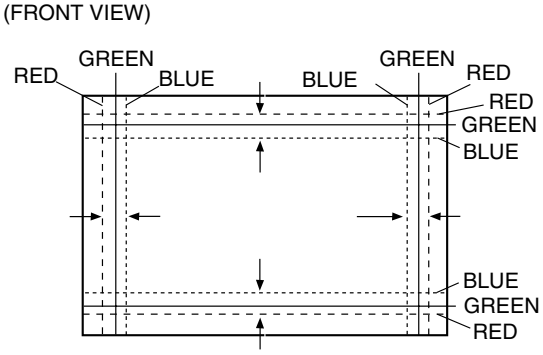


Fig. 6

STATIC CONVERGENCE ADJUSTMENT [AV-25L91-BK]

1. Input a crosshatch signal.
2. Using 4-pole convergence magnets, overlap the red and blue lines in the centre of the screen (Fig. 7) and turn them to magenta (red/blue).
3. Using 6-pole convergence magnets, overlap the magenta(red/blue) and green lines in the centre of the screen and turn them to white.
4. Repeat 2 and 3 above, and make best convergence.

DYNAMIC CONVERGENCE ADJUSTMENT [AV-25L91-BK]

1. Move the deflection yoke up and down to adjust the pin cushion distortion in the screen top and bottom. (Fig. 8)
2. Using the Y_V VR on the deflection yoke, match the Y_V. (Fig. 9)
3. Using the Y_H VR on the deflection yoke, match the Y_H (CROSS). (Fig. 7 and 12)
4. Repeat the steps 1 and 3 and obtain an optimum convergence.
5. Differential coil ADJUSTMENT.
   In case where the horizontal lines of red and blue around the centre of both sides of the picture as shown in Fig. 11, adjust the X_V difference by using the differential coil on the top of the deflection yoke (Fig. 12) so as to minimize the X_V difference.

- After adjustment, fix the wedge at the original position.
  Fasten the retainer screw of the deflection yoke.
  Fix the 6 magnets with glue.

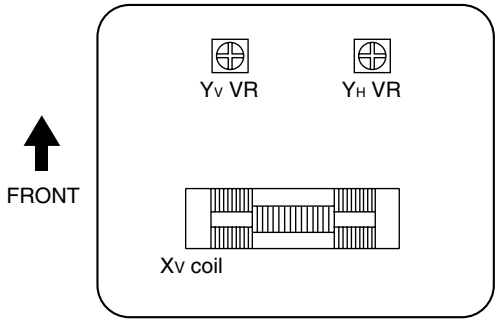


Fig. 12

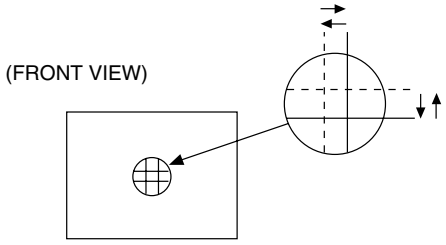


Fig. 7

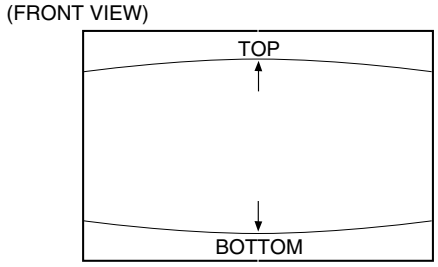


Fig. 8

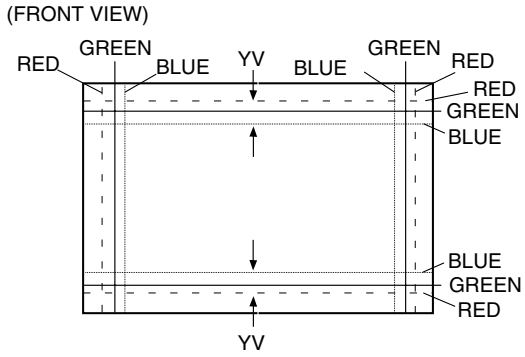


Fig. 9

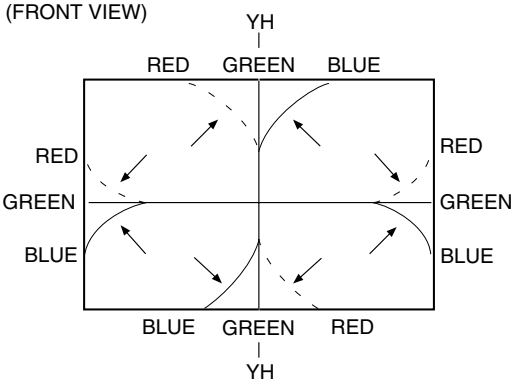


Fig. 10

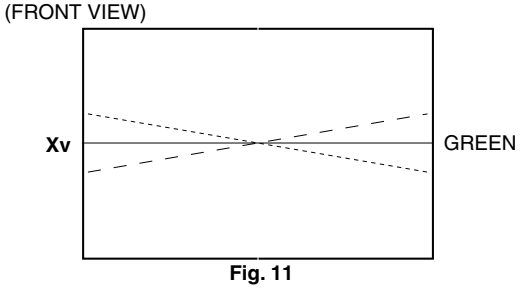


Fig. 11

STATIC CONVERGENCE ADJUSTMENT [AV-29L91-BK]

1. Input a crosshatch signal.
2. Using 4-pole convergence magnets, overlap the red and blue lines in the centre of the screen (Fig. 13) and turn them to magenta (red/blue).
3. Using 6-pole convergence magnets, overlap the magenta(red/blue) and green lines in the centre of the screen and turn them to white.
4. Repeat 2 and 3 above, and make best convergence.

DYNAMIC CONVERGENCE ADJUSTMENT [AV-29L91-BK]

1. Using the Y_H VR on the deflection yoke, match the Y_H (CROSS). (Fig. 14 and 17)
2. Using the Y_V VR on the deflection yoke, match the Y_V. (Fig. 15 and 17)
3. Repeat the steps 1 and 2, obtain an optimum convergence.
4. Differential coil ADJUSTMENT.
   In case where the horizontal lines of red and blue around the centre of both sides of the picture as shown in Fig. 16, adjust the X_V difference by using the differential coil on the top of the deflection yoke (Fig. 17) so as to minimize the X_V difference.

- After adjustment, fix the wedge at the original position.
  Fasten the retainer screw of the deflection yoke.
  Fix the 6 magnets with glue.

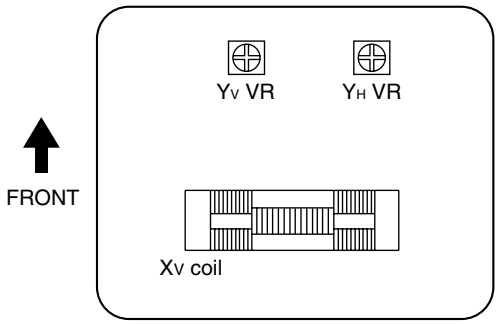


Fig. 17

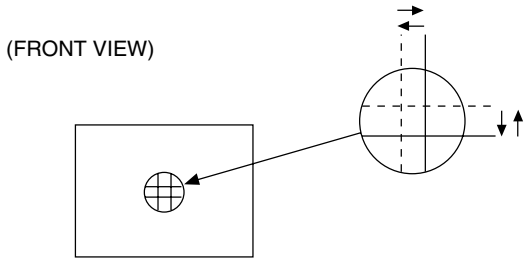


Fig. 13

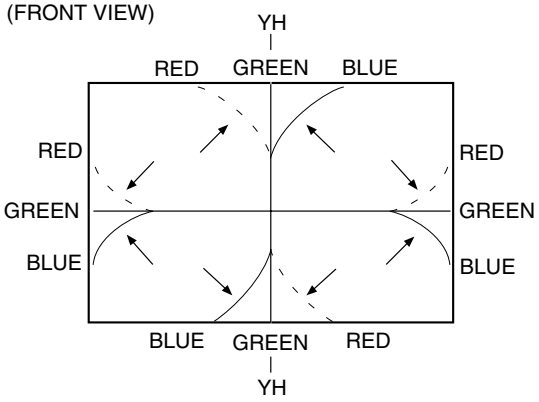


Fig. 14

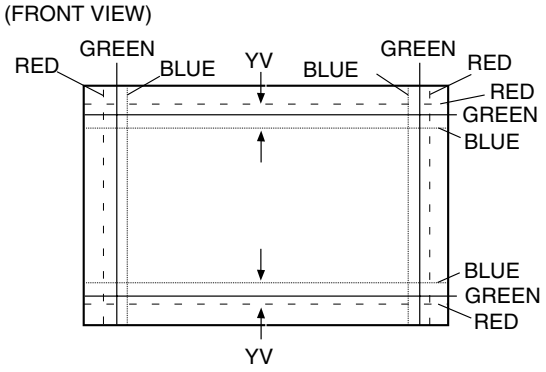


Fig. 15

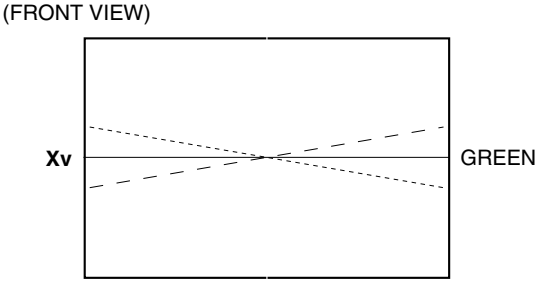


Fig. 16

SELF-CHECK FUNCTIONS

1. Outline

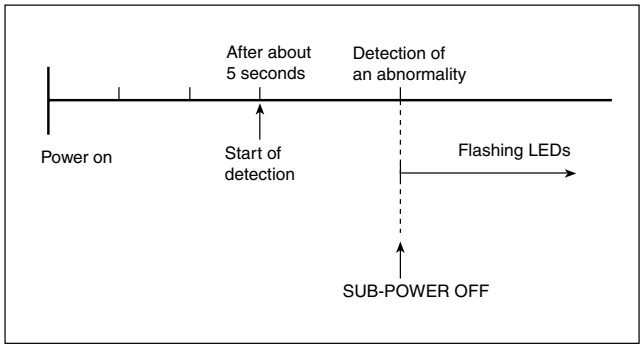
This model has self-check functions given below.When an abnormality has been detected,the SUB POWER is turned off and both ECO and ON TIMER LEDs flash to inform of the failure.An abnormality is detected by the signal input state of the control line connected to the microcomputer.

2. Self check items

Check item	Details of detection	Method of detection	State of abnormality
Over-current protection	An over-current on the low B line is detected.	The main microcomputer detects the possible abnormality at 30-msec.intervals and judges the results in every 16 time. Of the 16 times, if NG is detected more than 9 times, it is judged that there is an abnormality.	When an abnormality has been detected, the SUB-POWER is turned off. While the SUB-POWER is being turned off, the POWER key on the remote control unit is not operational until the power cord is taken out and put in again.
CRT NECK protection	Operation of CRT NECK protection circuit	DITTO	DITTO

3. Self check indicating function

When an abnormality has been detected at about 5 seconds after the power is turned on,the SUB POWER is turned off immediately and the LEDs flash.



[Indication by the LEDs]

Item	LEDs flashing intervals	Priority of detection
① Over-current protection	At 0.2-second intervals	1
② CRT NECK protection	At 1-second intervals	2

Note: In case of ① + ②, the item ① is indicated.

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AV21L91BK-BK #4
AV25L91BK-BK #4
AV29L91BK-BK #4

Printed in Japan
VP0111
SW

JVC

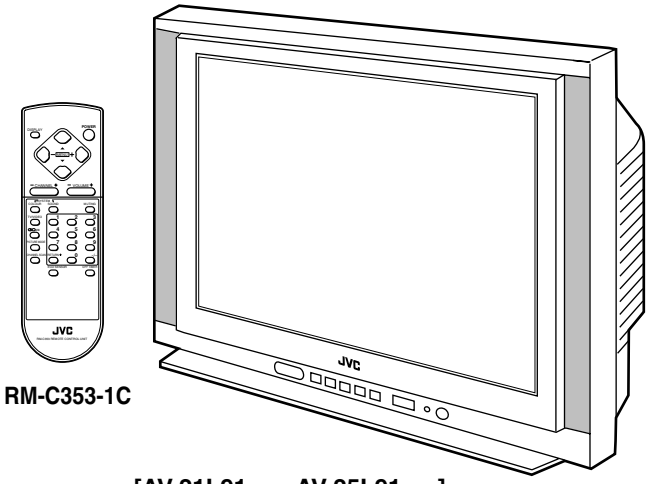
SCHEMATIC DIAGRAMS

COLOUR TELEVISION

BASIC CHASSIS
CH

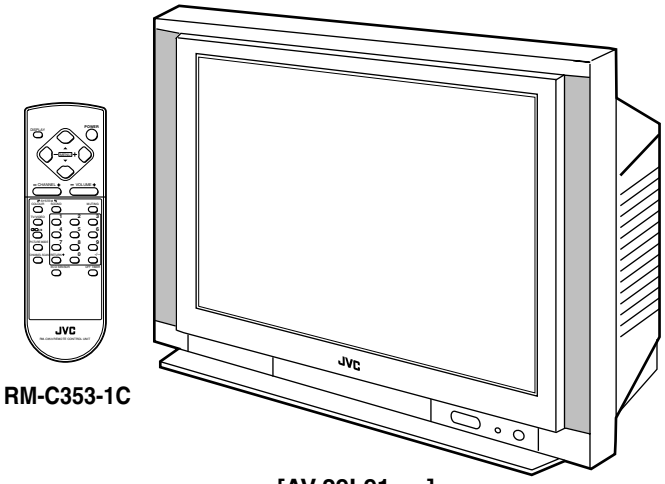
AV-21L91 (-BK)
AV-25L91 (-BK)
AV-29L91 (-BK)

CD-ROM No. SML200112



RM-C353-1C

[AV-21L91 (-BK), AV-25L91 (-BK)]



RM-C353-1C

[AV-29L91 (-BK)]

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No. 51898
Nov. 2001

AV-21L91 (-BK)
AV-25L91 (-BK)
AV-29L91 (-BK) STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1. SAFETY

The components identified by the ⚠ symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2. SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

(1) Input signal : Colour bar signal
(2) Setting positions of each knob/button and variable resistor : Original setting position when shipped
(3) Internal resistance of tester : DC 20kΩ/V
(4) Oscilloscope sweeping time : H ⇒ 20μS/div
: V ⇒ 5mS/div
: Others ⇒ Sweeping time is specified.
(5) Voltage values : All DC voltage values

∗Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3. INDICATION OF PARTS SYMBOL [EXAMPLE]

● In the PW board : R1209 → R209

4. INDICATIONS ON THE CIRCUIT DIAGRAM

(1) Resistors

● Resistance value

No unit	: [Ω]
k	: [kΩ]
M	: [MΩ]

● Rated allowable power

No indication	: 1/16 [W]
Others	: As specified

● Type

No indication	: Carbon resistor
OMR	: Oxide metal film resistor
MFR	: Metal film resistor
MPR	: Metal plate resistor
UNFR	: Non-Flammable resistor
FR	: Fusible resistor

∗Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2) Capacitors

● Capacitance value

1 or higher	: [pF]
less than 1	: [μF]

● Withstand voltage

No indication	: DC50[V]
AC indicated	: AC withstand voltage [V]
Others	: DC withstand voltage [V]

∗ Electrolytic Capacitors
47/50[Example] : Capacitance value [μF]/withstand voltage[V]

● Type

No indication	: Ceramic capacitor
MY	: Mylar capacitor
MM	: Metalized mylar capacitor
PP	: Polypropylene capacitor
MPP	: Metalized polypropylene capacitor
MF	: Metalized film capacitor
TF	: Thin film capacitor
BP	: Bipolar electrolytic capacitor
TAN	: Tantalum capacitor

(3) Coils

No unit	: [μH]
Others	: As specified

(4) Power Supply

: B1
: B2(12V)
: 9V
: 5V

∗Respective voltage values are indicated

(5) Test point

: Test point
: Only test point display

(6) Connecting method

: Connector
: Wrapping or soldering
: Receptacle

(7) Ground symbol

: LIVE side ground
: ISOLATED(NEUTRAL) side ground
: EARTH ground
: DIGITAL ground

5. NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND and the ISOLATED(NEUTRAL) : (⏚) side GND. Therefore, care must be taken for the following points.

(1) Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.
(2) Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected , a fuse or any parts will be broken.

● Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

Nov. 2001 No. 51898

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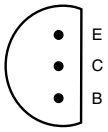
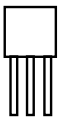
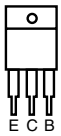
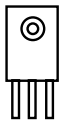
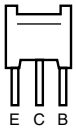
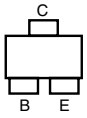
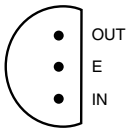
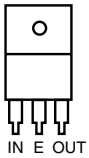
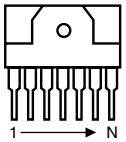
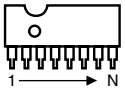
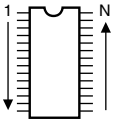
SEMICONDUCTOR SHAPES

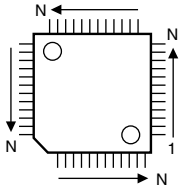
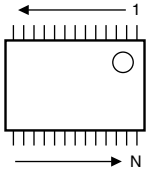
TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

IC

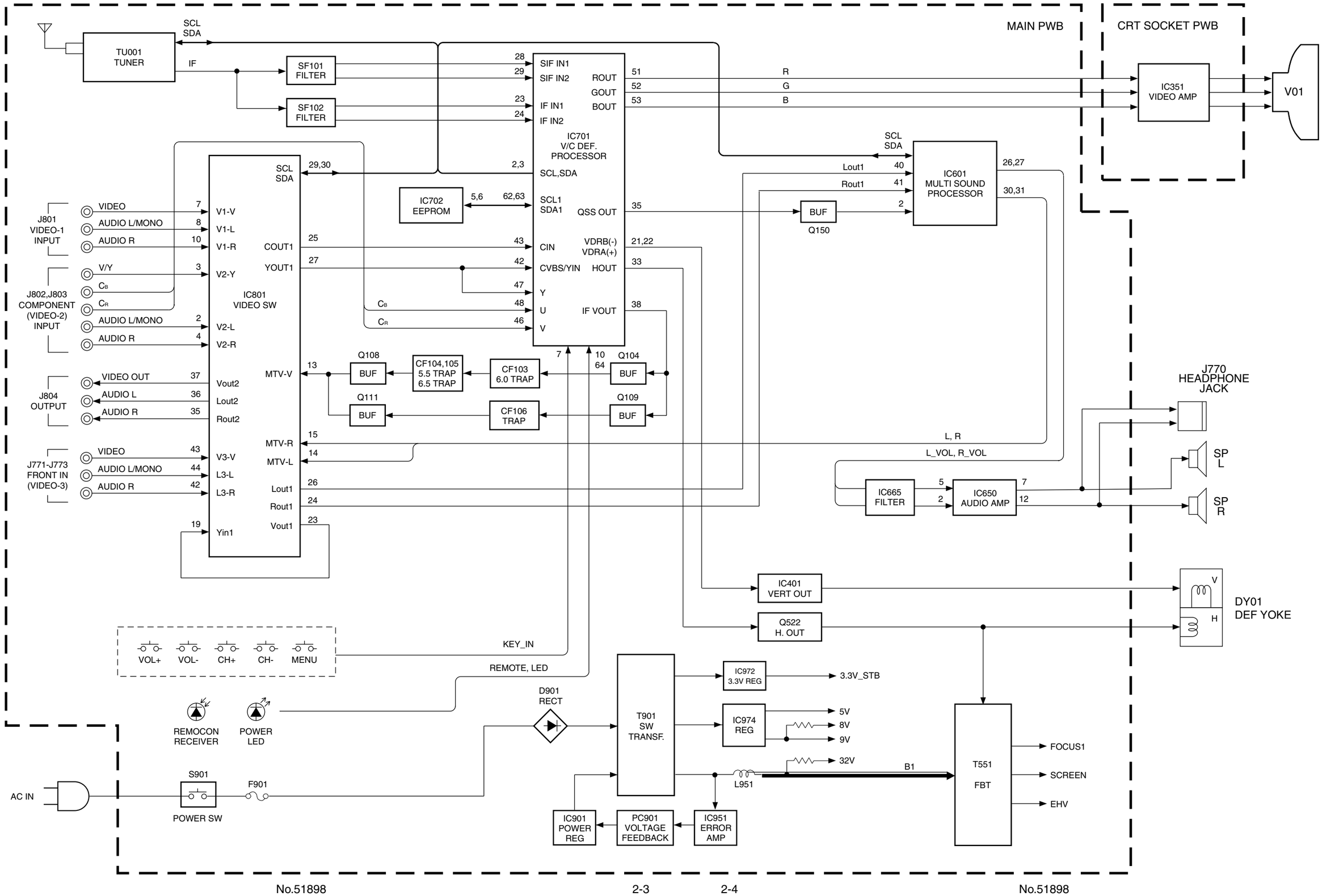
BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

CHIP IC

TOP VIEW		
		

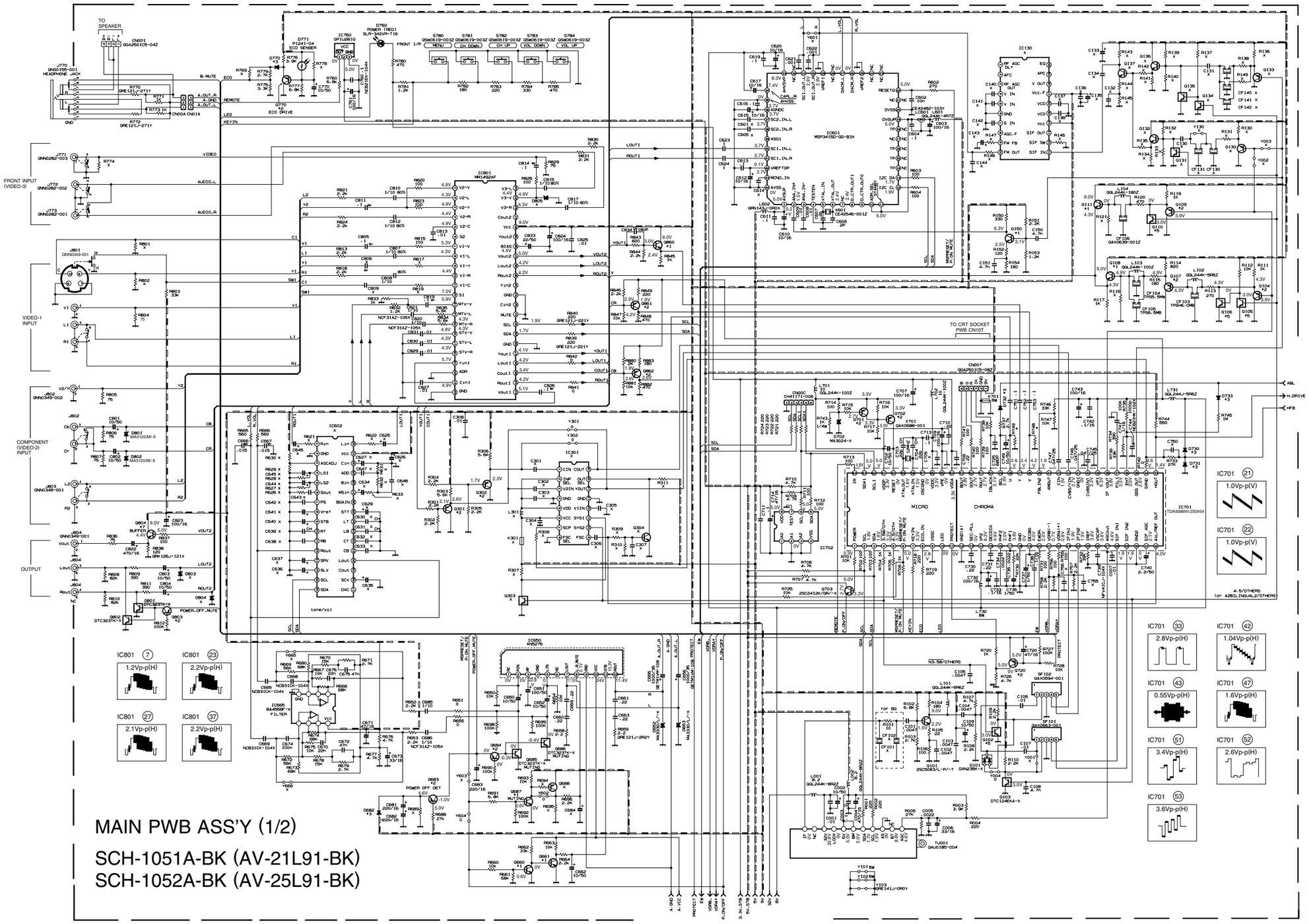
AV-21L91
AV-25L91

BLOCK DIAGRAM [AV-21L91-BK, AV-25L91-BK]



CIRCUIT DIAGRAMS [AV-21L91-BK, AV-25L91-BK]

MAIN PWB CIRCUIT DIAGRAM (1/2) [AV-21L91-BK, AV25L91-BK]



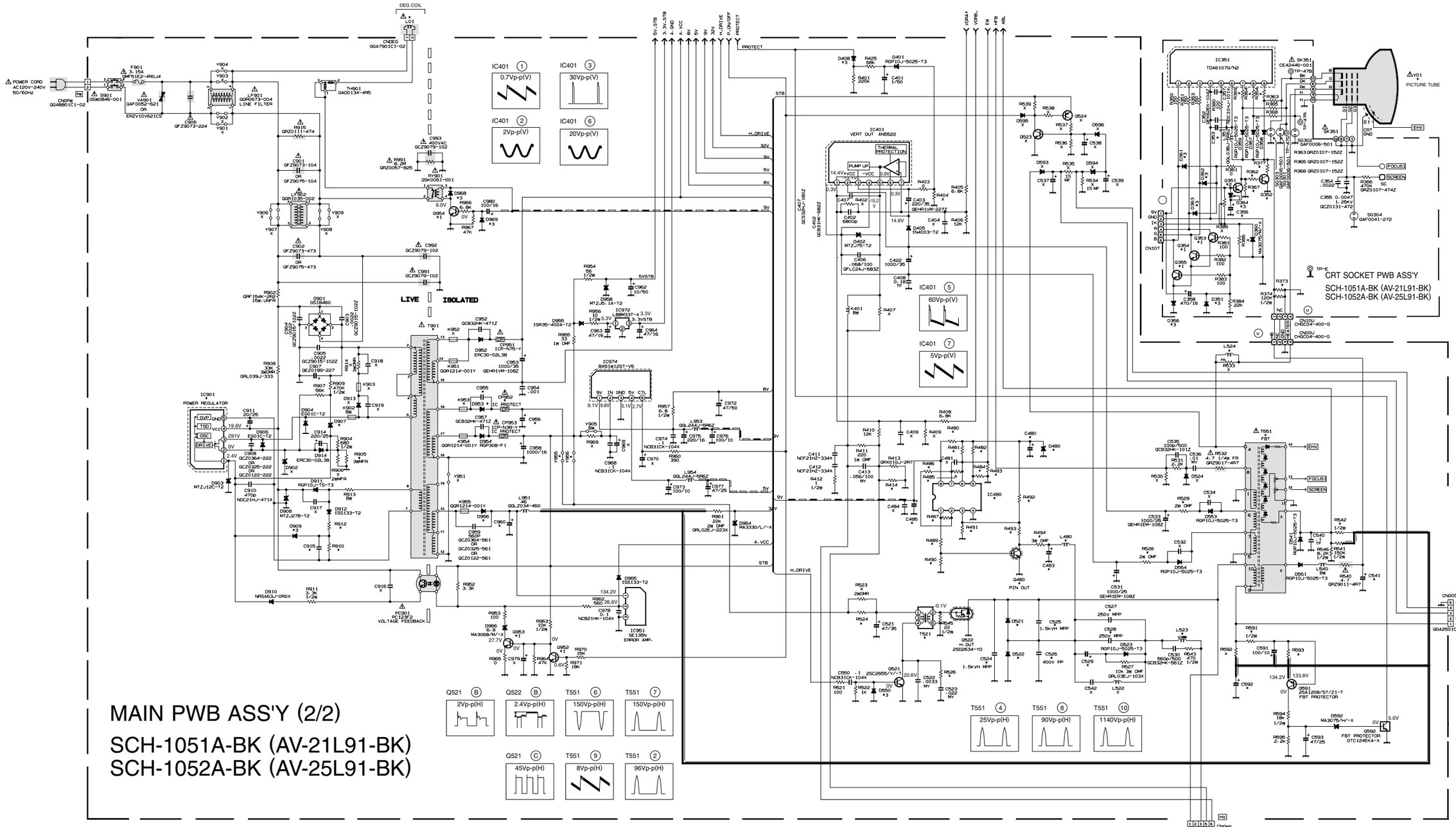
∗DIFFERENCE LIST (∗PARTS)

	R748	R749
SCH-1051A-BK	4.7M Ω	4.7M Ω
SCH-1052A-BK	2.2M Ω	2.2M Ω

NOTE

X : OPTION (NON MOUNT)
BW : BUS WIRE
0 : NRSA63J-0R0X
∗1 : 2SC2412K/QR/-X
∗2 : 2SA1037AK/QR/-X
∗3 : MA111-X
∗5 : DTC124EKA-X
∗7 : 2SC1740S/QR/-T

MAIN (2/2) AND CRT SOCKET PWB CIRCUIT DIAGRAMS [AV-21L91-BK, AV-25L91-BK]



∗DIFFERENCE LIST (∗PARTS)

	IC480	IC901	Q352	Q480	D480	D521	D522	D907	D953	D956	T521	⚠T551	⚠T901	⚠L01	L480	L523	L524	⚠V01	R354
SCH-1051A-BK	NOT USED	STR-F6707A/F7	2SC4722/NP/	NOT USED	NOT USED	ERB06-15-F1	RU3AM-LFC4	MA3300/M/-X	NOT USED	RU3AM-LFC4	CE40203-00CJ1	QQH0104-001	QQS0117-001	QQW0118-001	NOT USED	QQR1005-004	QQLZ034-360	A51QDX992X	2.2kΩ
SCH-1052A-BK	UPC358G2-XE	STR-F6709A/F7	NOT USED	2SD1408/0Y/-LB	MTZJ4.3A-T2	RH3G-F1	31DF6N-FC5	MA3150/M/-X	RGP10J-5025-T3	31DF6N-FC5	QQR1229-001	QQH0097-001	QQS0116-001	QQW0119-001	QQR1138-001	QQR1137-005	QQLZ026-140	A59QDF891X	1.8kΩ

	R362	R364	R367	R369	R373	R377	R414	R480	R481	R482	R483	R484	R485	R486	R487	R489	R490	R491	R492
SCH-1051A-BK	4.7kΩ	2.2kΩ	820Ω	2.2kΩ	390kΩ	47kΩ	150Ω	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED
SCH-1052A-BK	NOT USED	1.8kΩ	NOT USED	1.8kΩ	120kΩ	NOT USED	8.2Ω	680Ω	22 kΩ	5.6 kΩ	82 kΩ	5.6 kΩ	5.6 kΩ	2.7 kΩ	33 kΩ	1.2 kΩ	1kΩ	5.6 kΩ	8.2 kΩ

	R493	R494	R524	R526	R528	R529	R541	R542	R591	R592	R593	R905	R910	R912	C353	C356	C480	C483	C485
SCH-1051A-BK	NOT USED	NOT USED	27Ω	270Ω/1W	1.2Ω	1.2Ω	150kΩ	150kΩ	2.2kΩ	2.2Ω	1kΩ	0.22Ω	3.9kΩ	1.8kΩ	4.7μF	100μF	NOT USED	NOT USED	NOT USED
SCH-1052A-BK	33kΩ	47Ω	82Ω	270Ω/2W	0.47Ω	0.47Ω	120kΩ	120kΩ	4.7kΩ	3.9Ω	820Ω	0.15Ω	4.7kΩ	1.5kΩ	1μF	1000μF	10 μF	4.7μF	22μF

	C524	C525	C526	C527	C528	C529	C541	C592	C915	C955	C956	C960	⚠CP952	DY01	K953	Y955	Y956
SCH-1051A-BK	6100pF	3400pF	0.039μF	0.15μF	0.12μF	4.7μF	4.7μF	100μF	2200pF	NOT USED	NOT USED	100μF	NOT USED	QQD0060-002	NOT USED	NOT USED	BW
SCH-1052A-BK	4700pF	0.011μF	0.022μF	0.18μF	0.18μF	2.2μF	10μF	220μF	1500pF	470pF	220μF	220μF	ICP-N50-Y	QQD0062-001	QQR1214-001Y	BW	NOT USED

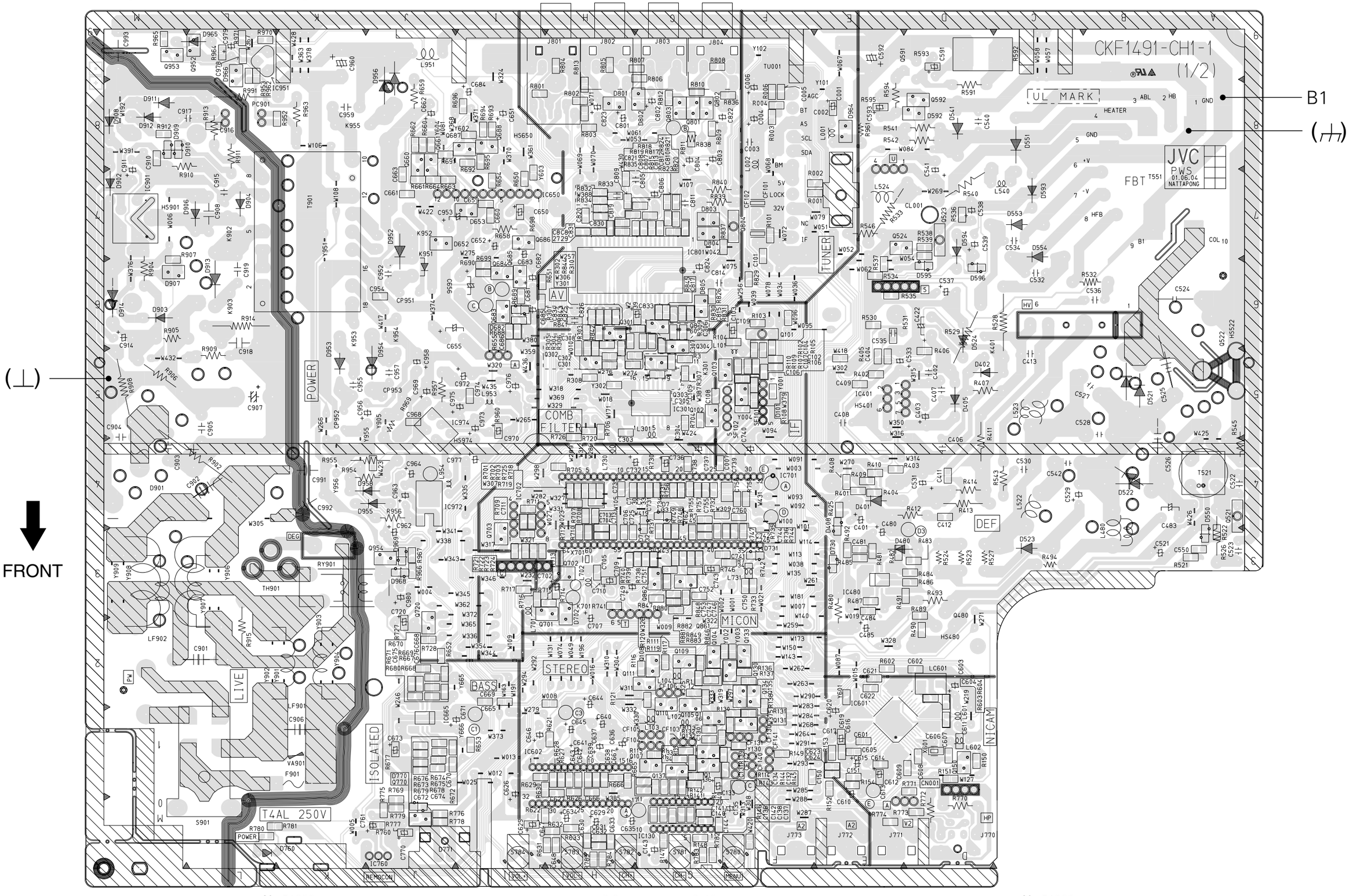
NOTE

X	: OPTION (NON MOUNT)
BW	: BUS WIRE
0	: NRSA63J-0R0X
∗1	: 2SC2412K/QR/-X
∗2	: 2SA1037AK/QR/-X
∗3	: MA111-X

AV-21L91
AV-25L91

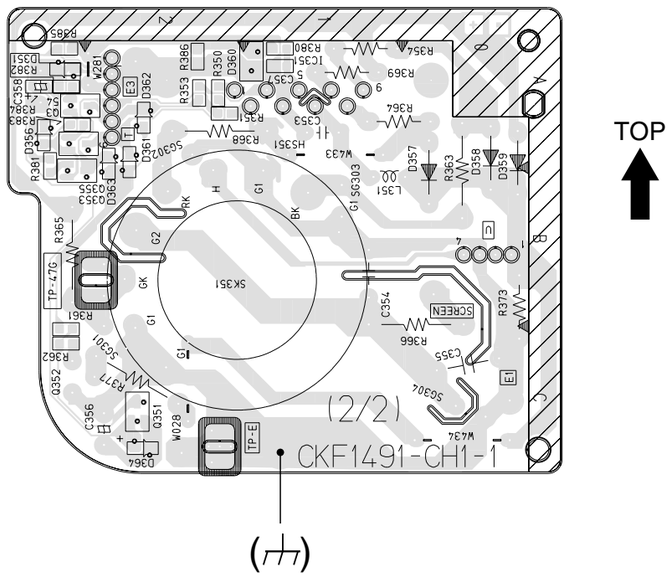
PATTERN DIAGRAMS [AV-21L91-BK, AV-25L91-BK]

MAIN PWB PATTERN [AV-21L91-BK, AV-25L91-BK]

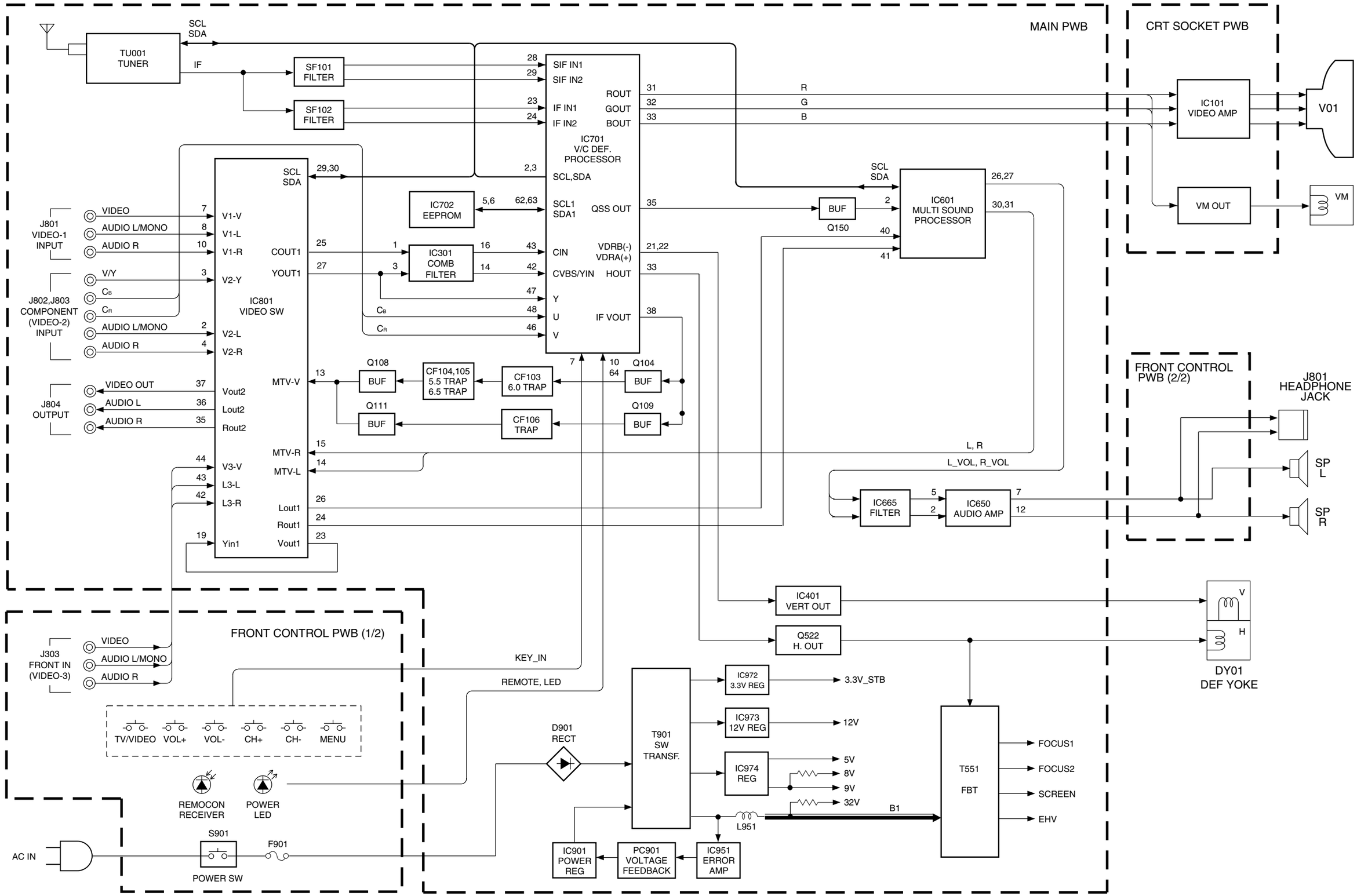


AV-21L91
AV-25L91

CRT SOCKET PWB PATTERN [AV-21L91-BK, AV-25L91-BK]

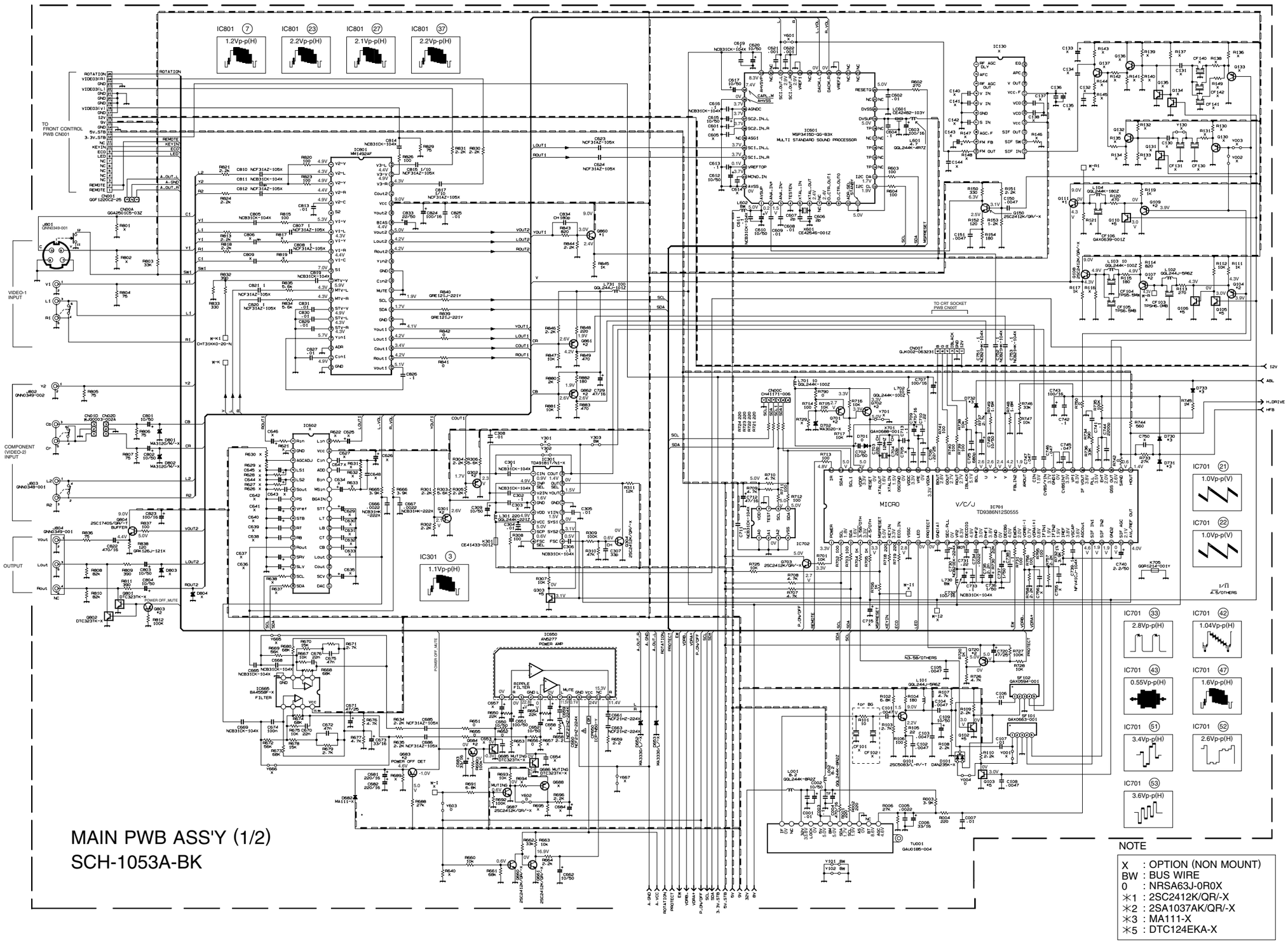


BLOCK DIAGRAM [AV-29L91-BK]



CIRCUIT DIAGRAMS [AV-29L91-BK]

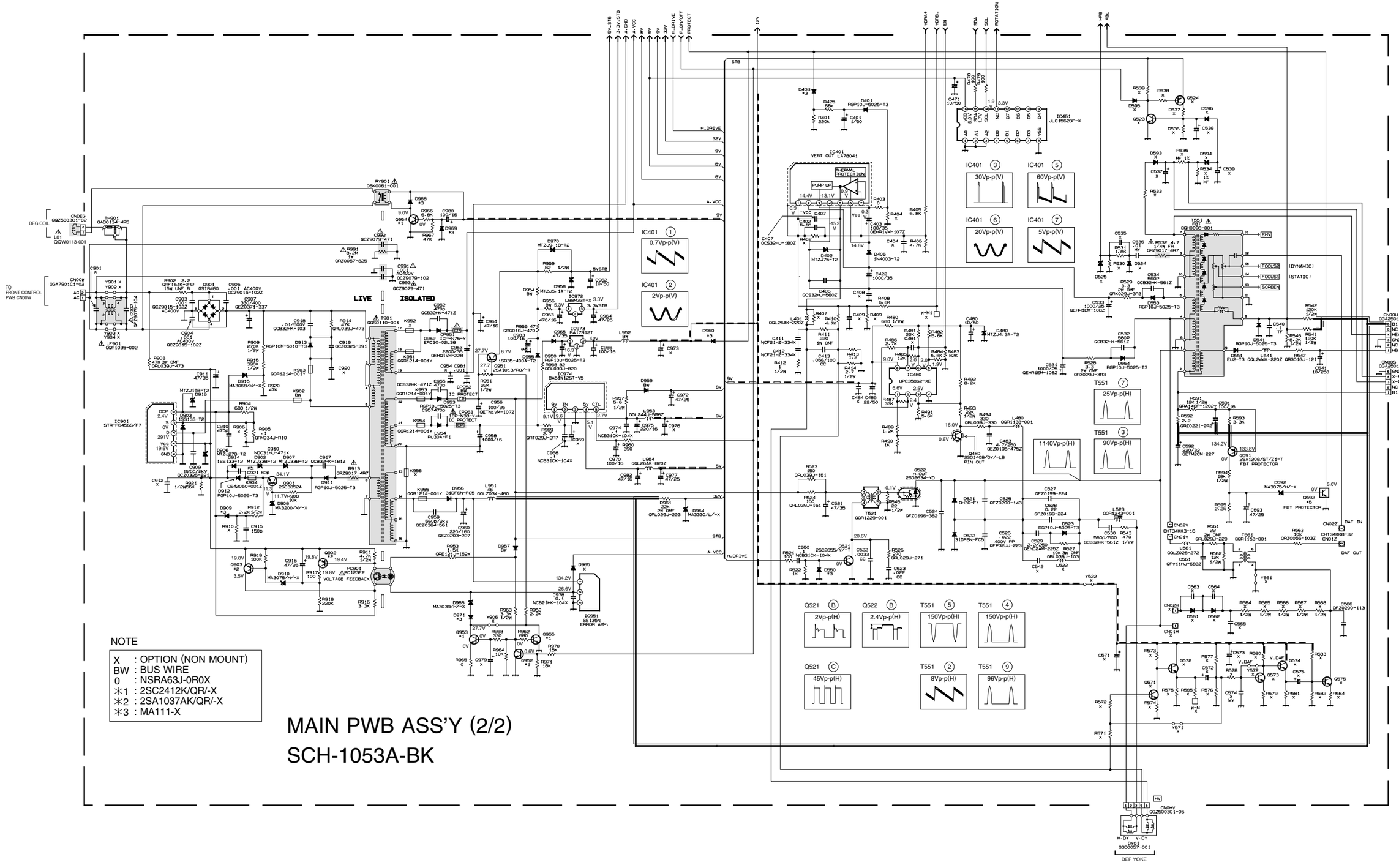
MAIN PWB CIRCUIT DIAGRAM (1/2) [AV29L91-BK]



NOTE

X : OPTION (NON MOUNT)
BW : BUS WIRE
0 : NRSA63J-0R0X
∗1 : 2SC2412K/QR/-X
∗2 : 2SA1037AK/QR/-X
∗3 : MA111-X
∗5 : DTC124EKA-X

MAIN PWB CIRCUIT DIAGRAM (2/2) [AV-29L91-BK]

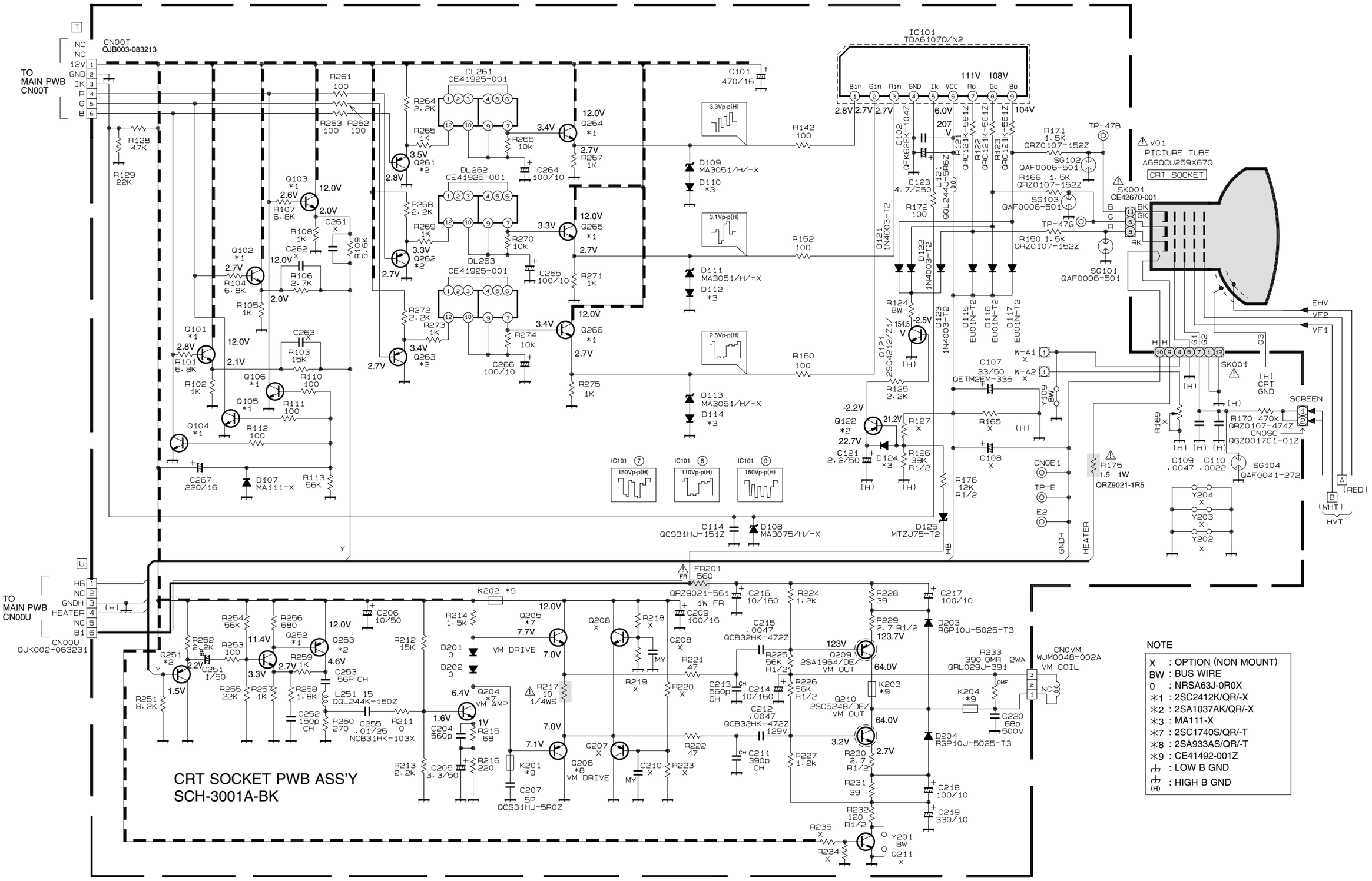


NOTE

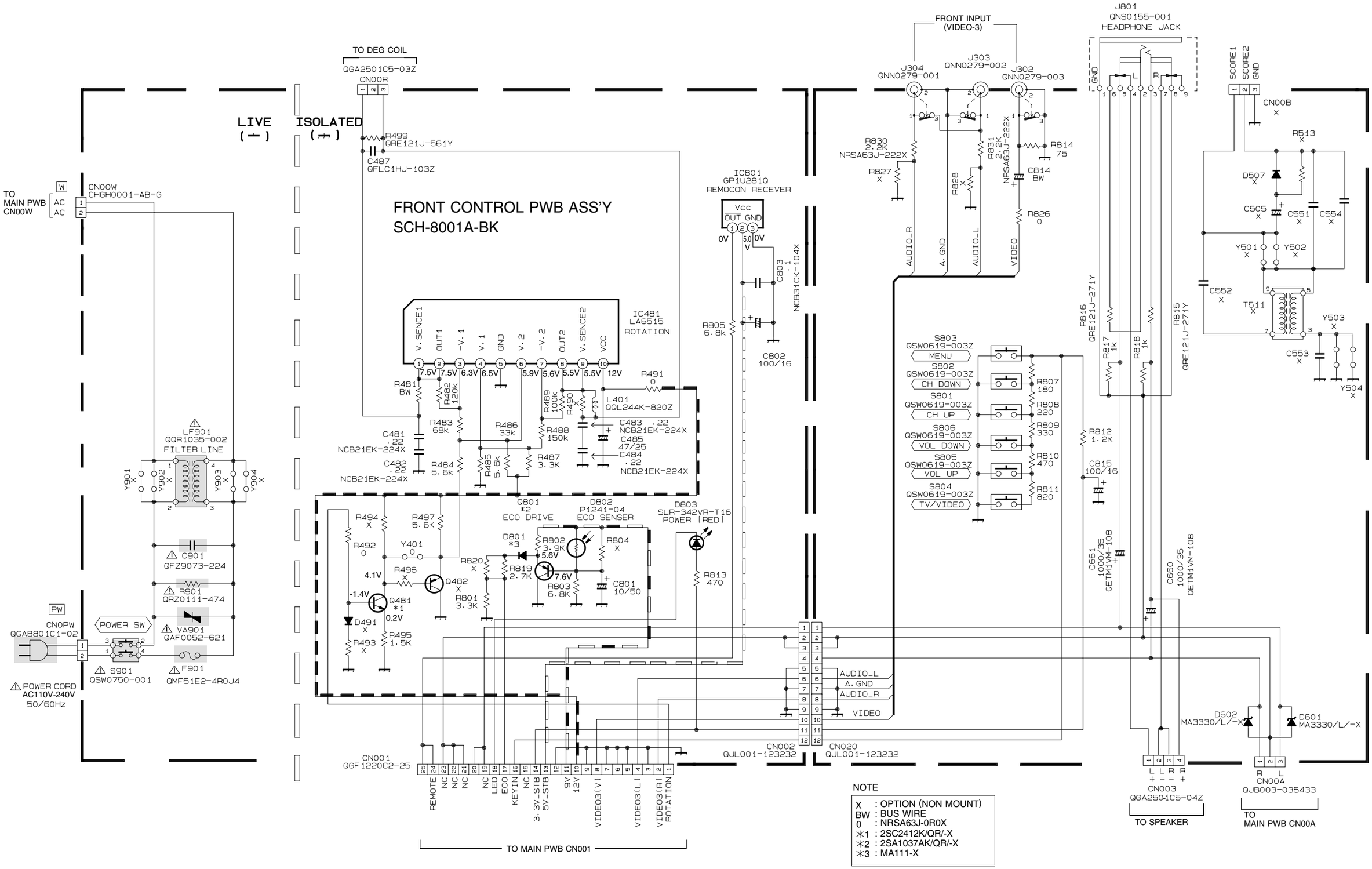
X	: OPTION (NON MOUNT)
BW	: BUS WIRE
0	: NSRA63J-0R0X
✳1	: 2SC2412K/QR/-X
✳2	: 2SA1037AK/QR/-X
✳3	: MA111-X

MAIN PWB ASS'Y (2/2)
SCH-1053A-BK

CRT SOCKET PWB CIRCUIT DIAGRAM [AV-29L91-BK]



FRONT CONTROL PWB CIRCUIT DIAGRAM [AV-29L91-BK]

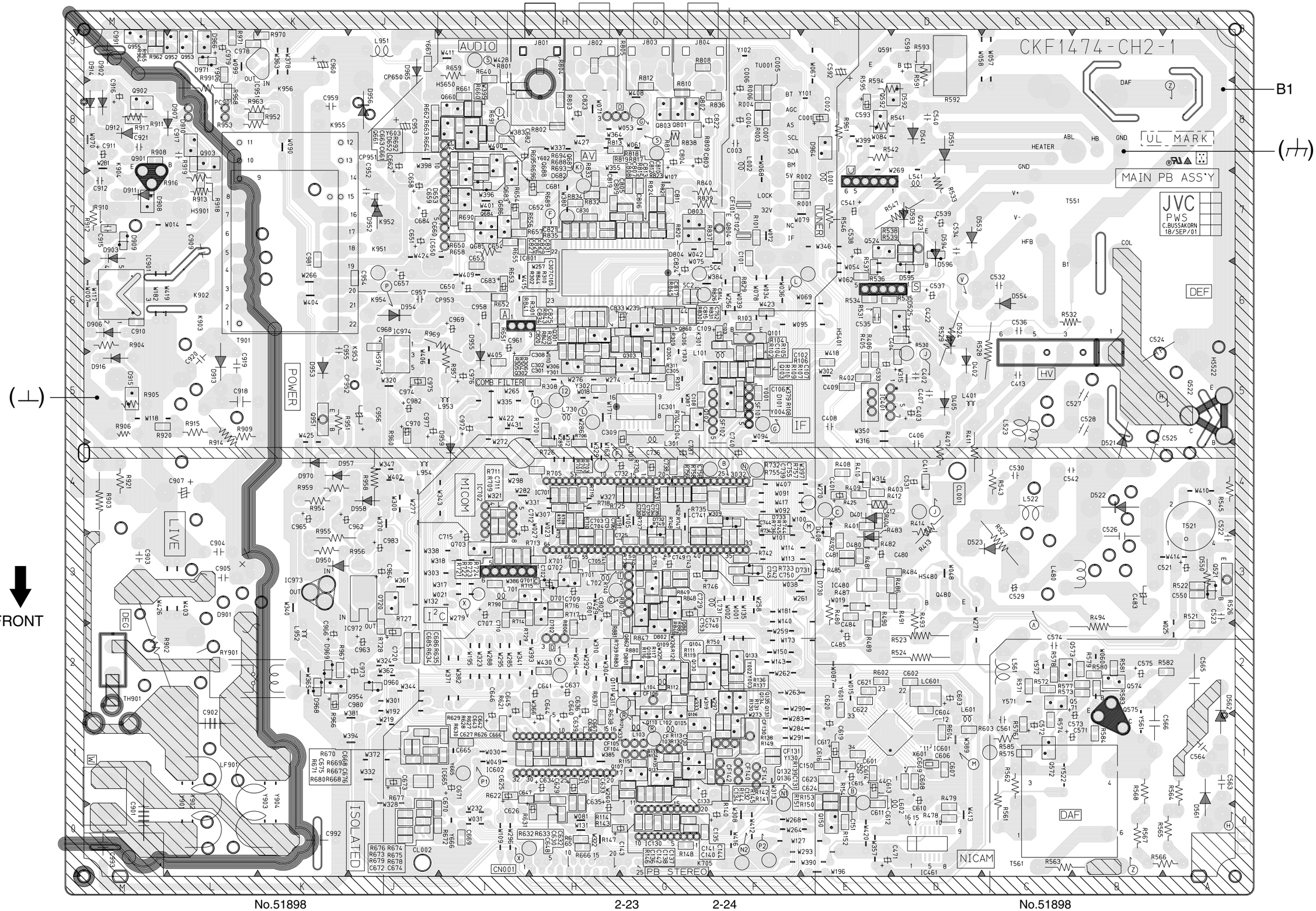


NOTE

X	: OPTION (NON MOUNT)
BW	: BUS WIRE
0	: NRSA63J-0R0X
✳1	: 2SC2412K/QR/-X
✳2	: 2SA1037AK/QR/-X
✳3	: MA111-X

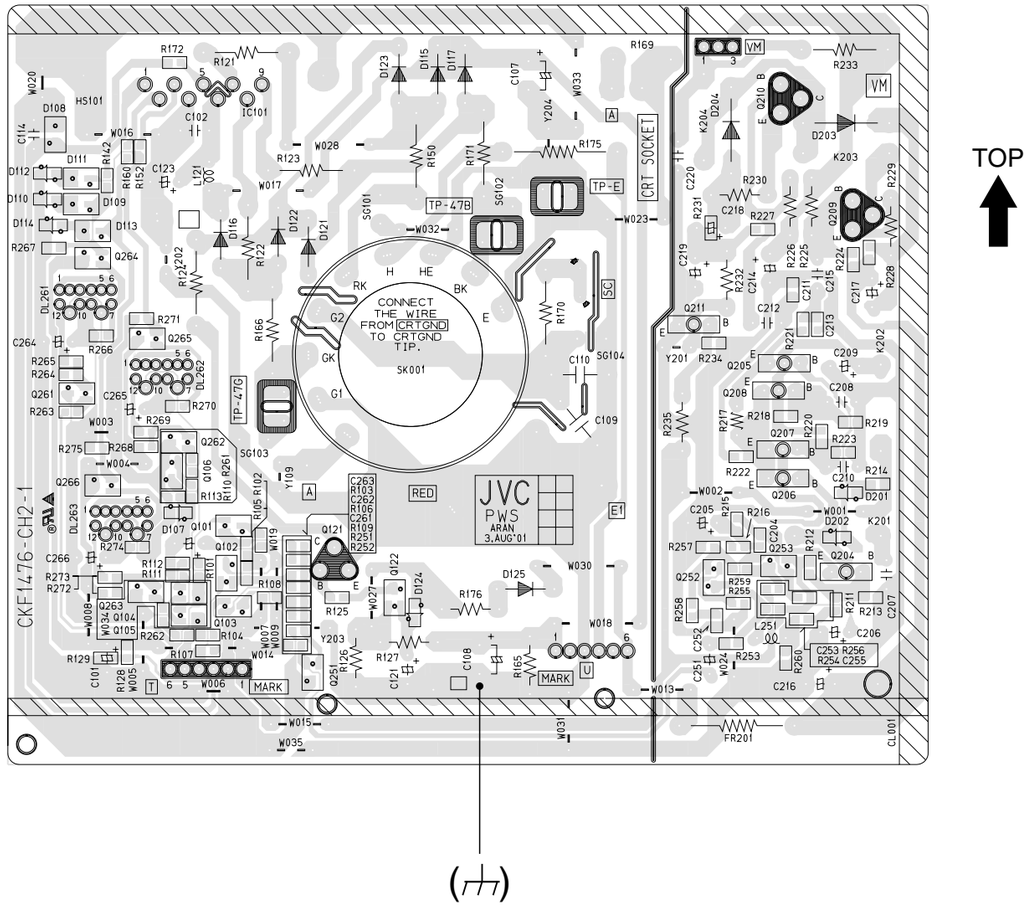
PATTERN DIAGRAMS [AV-29L91-BK]

MAIN PWB PATTERN [AV-29L91-BK]



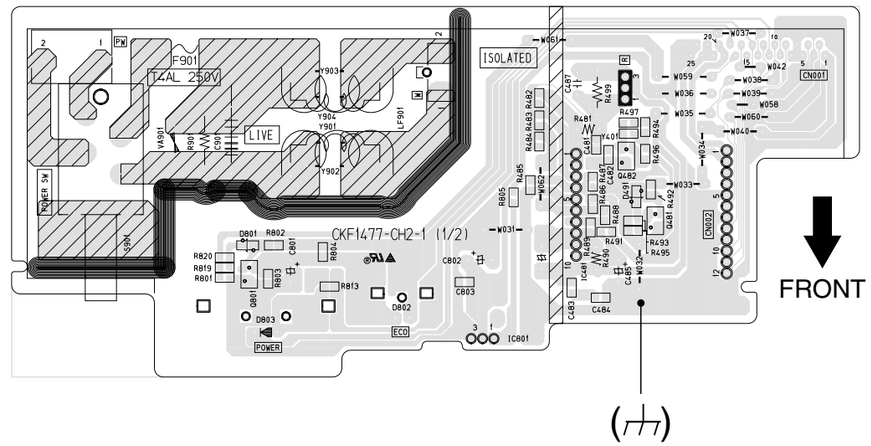
AV-29L91

CRT SOCKET PWB PATTERN [AV-29L91-BK]

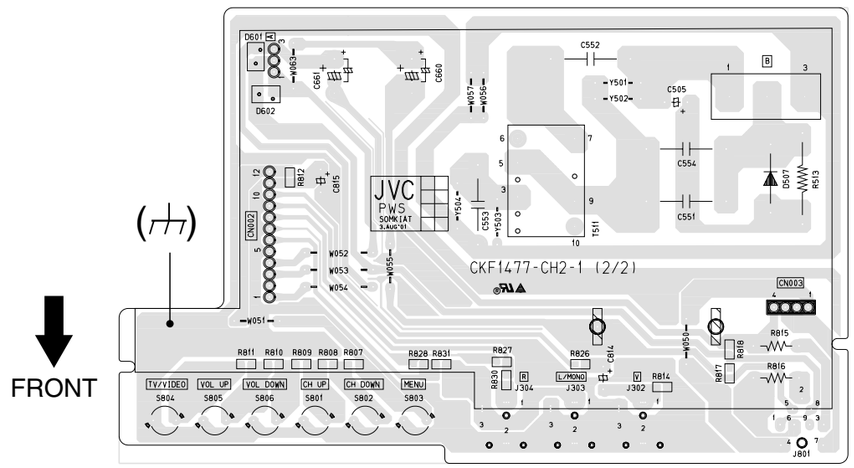


FRONT CONTROL PWB PATTERN [AV-29L91-BK]

– FRONT CONTROL (1/2) –



– FRONT CONTROL (2/2) –



No.51898

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HOME AV NETWORK BUSINESS UNIT 12, 3-chome, Moriya-cho, kanagawa-ku, Yokohama, kanagawa-prefecture, 221-8528, Japan

AV21L91BK-BK #4
AV25L91BK-BK #4
AV29L91BK-BK #4

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VP0111
SW

JVC

COLOUR TELEVISION

INSTRUCTIONS

Thank you for buying this JVC colour television.
To make sure you understand how to use your new TV, please read this manual thoroughly before you begin.

AV-21L91
AV-25L91
AV-29L91

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LCT1064-001A-H
0801-Ki-NV-JET

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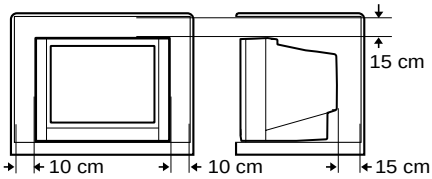
Safety precautions

WARNING

• To prevent fire or shock hazard, do not expose the TV to rain or moisture.

CAUTION

- Operate only from the power source indicated on the rear of the TV.
- Avoid damaging the power cord and mains plug. When you unplug the TV, pull it out by the mains plug. Do not pull on the power cord.
- Never block or cover the cabinet openings for ventilation. Never install the TV where good ventilation is unattainable. When installing this TV, leave spaces for ventilation around the TV more than the minimum distances shown in the diagram.



- Do not allow objects or liquid into the cabinet openings.
- In the event of a fault, unplug the TV and call a service technician. Do not attempt to repair it by yourself or remove the rear cover.
- The surface of the TV screen is easily damaged. Be very careful with it when handling the TV. Should the TV screen become soiled, wipe it with a soft dry cloth. Never rub it forcefully. Never use any cleaner or detergent on it.
- When you don't use this TV for a long period of time, be sure to unplug it.

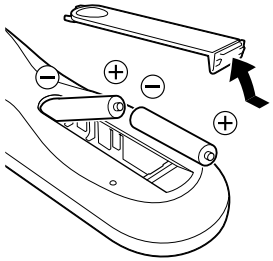
Preparation

1 Insert the batteries into the remote control

Correctly insert two batteries, observing the , and . polarities and inserting the . end first.

CAUTION:
Follow the cautions printed on the batteries.

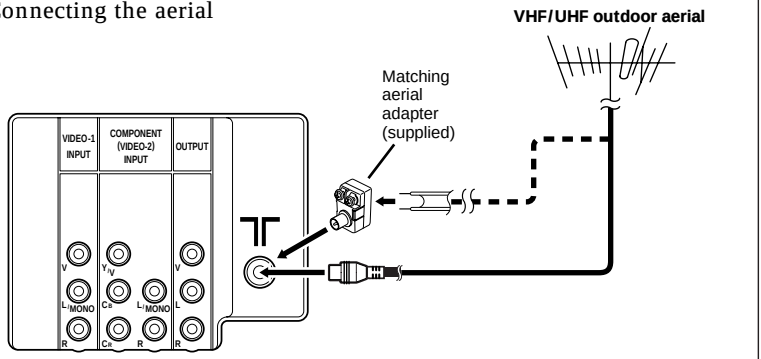
Notes:
- Use AA/R6/UM-3 dry cell batteries.
- If the remote control does not work properly, fit new batteries.
  The supplied batteries are for testing, not regular use.

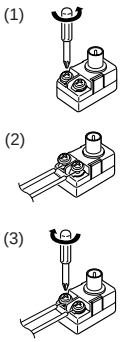


2 Connecting the aerial and VCR

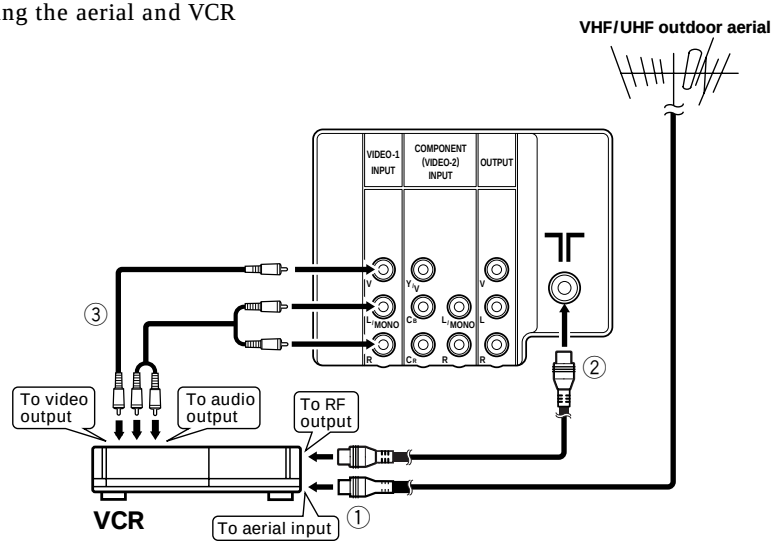
- Read the manuals provided with the devices. Depending on the device, the connection method may be different from the diagrams. Also the device settings may need to change depending on the connection method.
- Turn off all the devices including the TV.
- Connecting cables are not supplied.
- When connecting monaural audio to the TV, use the L/MONO jack.
- If you connect the VCR to the TV only with an aerial cable, you should preset the video channel from the VCR to the AV channel (channel number 0) on this TV. See “MANUAL CH PRESET” on page 15 and preset it manually.

Connecting the aerial





Connecting the aerial and VCR

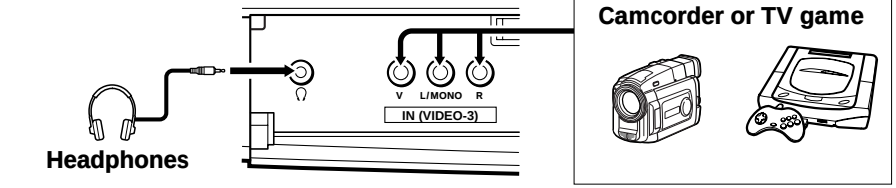


3 Connecting other devices

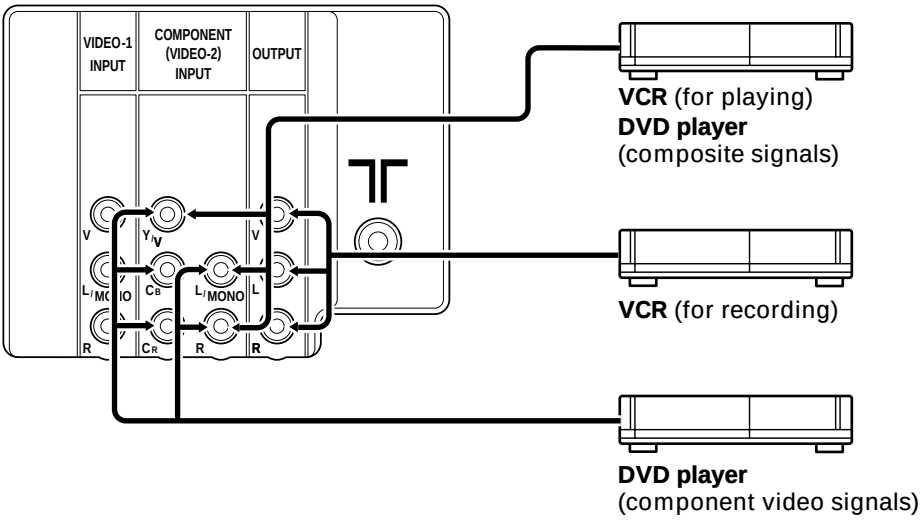
If you are not connecting any other devices, skip step 3 and perform step 4.

- Use the headphones with a stereo mini jack (3.5 mm in diameter). When you connect the headphones, the TV speakers go off.
- The OUTPUT terminal outputs the video and sound signals which you are viewing on the TV. You can dub them onto the VCR connected to the OUTPUT terminal.
  (The OUTPUT terminal cannot output component video signals. Also it cannot output any signals when the TV is turned off.)
- Connect components outputting a component signal (Y/C_B/C_R signal), such as a DVD player, to the VIDEO-2 terminal, and set VIDEO-2 SET function to "COMPONENT". (See page 13.)
- The following illustrations are for the AV-29L91. Your TV's front and rear pannels may not look exactly like the illustrations.

Front



Rear



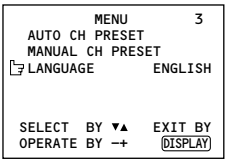
4 Connect the power cord to the AC outlet

5 Initial setting

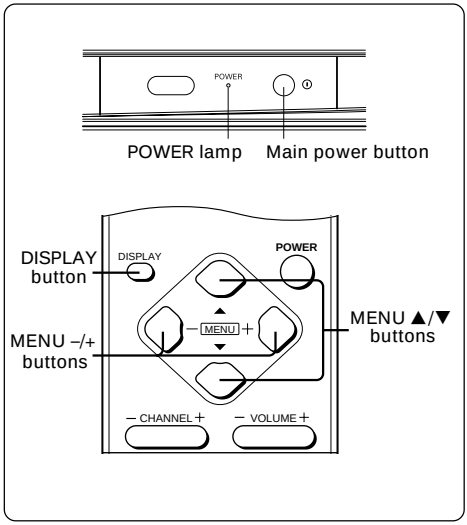
When the TV is first turned on, it enters the initial setting mode, and the JVC logo is displayed. Follow the instructions on the on-screen display to perform the initial settings.

1 Press the Main power button on the TV.

The POWER lamp lights. After the JVC logo has been displayed, the TV automatically switches to the language setting mode.



• The JVC logo does not appear if your TV has been turned on once before. In this case, use the LANGUAGE and AUTO CH PRESET functions to perform the initial settings. For details, see pages 14 and 16.



2 Press the MENU –/+ buttons to select language.

3 Press the MENU ▲/▼ buttons to select “AUTO CH PRESET”

4 Press the MENU –/+ buttons to start the AUTO CH PRESET function.

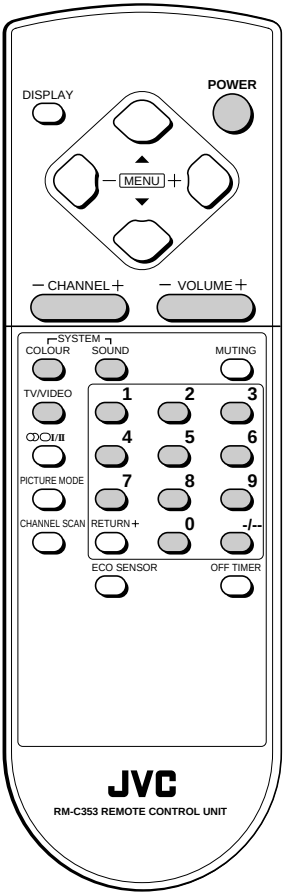
“>>> ON SEARCH” is displayed on the screen.

When all the TV channels that can be received on your TV have been preset, the display goes out and the AUTO CH PRESET function operation is completed.

To stop the AUTO CH PRESET function, press the MENU –/+ buttons.

• If a TV channel you want to view is not set to the channel, set it with the MANUAL CH PRESET function. For details, see page 15.

This completes initial setting.
Now you’re ready to enjoy your JVC TV.



1 Press the POWER button to turn your TV on.

- If your TV does not turn on, press the Main power button on the TV then press the POWER button again.
- You can also turn on your TV by pressing any of the following buttons;
  - the CHANNEL –/+ button
  - the Number buttons
  - the TV/VIDEO button

2 Select a channel.

■ Press the CHANNEL –/+ button.

- Up/down selection cannot be selected for channels to which the SKIP has been set to "YES". See page 16.

■ Press the Number buttons to enter the channel number.

- If you want to enter a two-digit number, press the -/-- button to select the two digit mode "--", then enter the channel number.

3 Press the VOLUME –/+ button to adjust the sound.

4 To turn your TV off, press the POWER button.

- We recommend that you press the Main power button on the TV to turn the main power off if you do not plan to use your TV for a long time or if you wish to save energy.

If the picture is not clear:
Press the COLOUR SYSTEM button to select another colour system, see page 7.

If the sound is not clear:
Press the SOUND SYSTEM button to select another sound system, see page 7.

Viewing Images from an External Device:
Press the TV/VIDEO button to select the VIDEO mode.

- You can also use the INPUT function to select the VIDEO mode. For details, refer to page 11.

ECO SENSOR button

You can adjust this TV so that the screen automatically adjusts to the optimum contrast according to the brightness of your room. This function reduces eye strain and the power consumption of this TV.

Press this button to select the desired mode.

DIGITAL ECO SENSOR DISPLAY:
The ECO SENSOR function switches on. In this mode, the clover mark indicating the brightness of your room is displayed for several seconds each time the brightness changes. The number of clover marks displayed on screen increases as your room becomes darker.

DIGITAL ECO SENSOR:
The ECO SENSOR function switches on. However, in this mode, the clover mark will not be displayed.

DIGITAL ECO SENSOR OFF:
The ECO SENSOR function switches off.

PICTURE MODE button

You can select one of three picture adjustment settings as you like.

Press this button to select a mode.

BRIGHT:
Heightens contrast and sharpness.

STANDARD:
Standardizes picture adjustments.

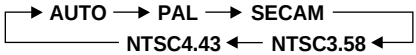
SOFT:
Softens contrast and sharpness.

- Pressing this button returns all the picture settings in “MENU 4” to their default settings.

COLOUR SYSTEM button

If the picture is not clear or no colour appears, change the current colour system to another colour system.

Press this button to select the colour system.



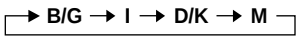
AUTO:
Automatic colour system selection.

- For the colour systems in each country or region, see the table“Broadcasting systems” on page 20.
- If the picture is not normal in the AUTO mode, change the AUTO mode to another colour system.

SOUND SYSTEM button

If the sound is not clear even when the picture appears normal, change the current sound system to another sound system.

Press this button to select the sound system.



- For the sound systems in each country or region, see the table “Broadcasting systems” on page 20.
- You cannot select any sound system when in a VIDEO mode.

⧉⧉I/II button

You can select a sound setting for stereo broadcast programmes and bilingual programmes.

Press this button to select a sound setting.

⧉ : Stereo sound
I : Bilingual I (sub I) sound
II : Bilingual II (sub II) sound
⧉ : Monaural sound
MONO : Cancels the multi-sound function, and the sound becomes monaural.

- If you have poor reception of a stereo broadcast, you can change from stereo sound (⧉) to monaural sound (⧉) so that you can hear the broadcast more clearly and easily.
- If the multi-sound function cannot work normally due to poor signal quality, noise may be included in the sound, or the sound may change many times. If this happens, change the sound setting to MONO mode to cancel the multi-sound function.

MUTING button

You can turn the sound off instantly.

Press this button.

To turn the sound on, press this button again.

DISPLAY button

You can continuously display the current channel number or VIDEO mode on the screen.

Press this button.

To turn the display off, press this button again.

- When selecting a VIDEO mode with no signal, indication of the VIDEO mode becomes fixed on the screen.

OFF TIMER button

You can set the TV to automatically turn off after a set time.

Press this button to select the period of time.

- You can set the period of time to a maximum of 120 minutes in 10 minute increments.
- 1 minute before the OFF TIMER function turns off the TV, “GOOD NIGHT!” appears.

To display the remaining time, press this button once.

To cancel the OFF TIMER function, press this button to set the period of time to 0.

- The OFF TIMER function will not turn off the TV’s main power.

RETURN + button

You can set a channel you frequently view to the Return Channel and you can view that channel at any time with one-touch.

To set the channel to the Return Channel:

1 Select the channel you want to set to the Return Channel.

2 Press this button and hold until the message "RETURN PLUS PROGRAMMED!" appears.

- When you turn off the TV, the Return Channel setting is cancelled.

To view the Return Channel:
Press this button.

- You can view two channels (current channel and Return Channel) alternately by pressing this button.

To cancel the Return Channel setting:
Press this button and hold until the message"RETURN PLUS CANCELLED!" appears.

If no channel is set to the Return Channel:
You can view the channel selected right before the current channel by pressing this button.

CHANNEL SCAN button

You can quickly view all TV channels programmes that you can view on your TV, and search for the programme you want to view.

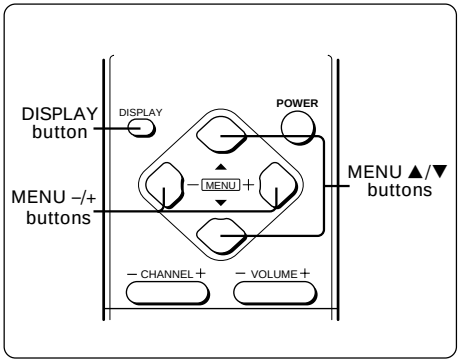
1 Press this button to start scanning TV channels.

The TV channel programmes are each displayed for several seconds.

- The programmes of TV channels for which the SKIP function is set to "YES" are not displayed.

2 When you find the programme you want to view, press this button again to stop scanning.

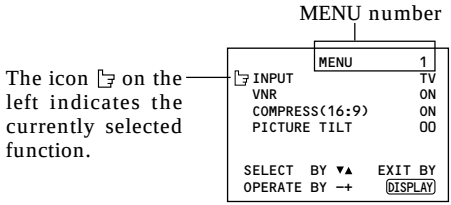
This TV has a number of functions you can operate using the menus. To use all your TV's functions fully, you need to understand how to use the menus.



■ Basic operation

1 Press the MENU ▲/▼ buttons.

One of the 5 menus is displayed.



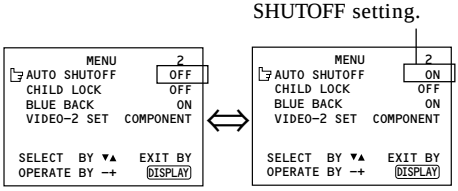
2 Repeatedly press the MENU ▲/▼ buttons to display a desired menu.

- If you hold down the ▼ button, the next menu is displayed.
- If the selected function is on the first line, pressing the ▲ button displays the preceding menu.

3 Repeatedly press the MENU ▲/▼ buttons to select a desired function.

4 Press the MENU –/+ buttons to change function settings.

Example:



- With some functions, the operation method may differ.

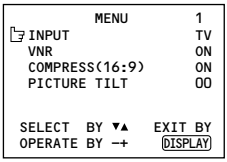
5 Press the DISPLAY button to turn the display off.

- To operate a menu using the buttons on the front panel of the TV, refer to "Operating menus" on page 18.

INPUT

You can view images from VCRs or other devices connected to your TV.

1 Press MENU ▲/▼ to display the "MENU 1" menu, then select "INPUT".



2 Press MENU –/+ to select "VIDEO 1", "VIDEO 2" or "VIDEO 3".

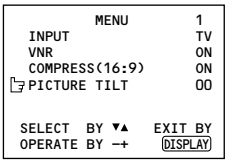
TV mode changes to VIDEO mode.

PICTURE TILT

< AV-29L91 only >

There are cases where the Earth's magnetic force may make the picture tilt. If this happens, you can correct the picture tilt.

1 Press MENU ▲/▼ to display the "MENU 1" menu, then select "PICTURE TILT".

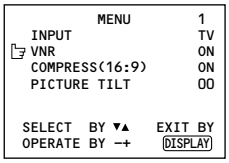


2 Continue pressing MENU –/+ until the picture becomes level.

VNR

You can reduce picture noise.

1 Press MENU ▲/▼ to display the "MENU 1" menu, then select "VNR".



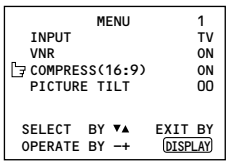
2 Press MENU –/+ to select "ON".

To cancel the VNR function, select "OFF".

COMPRESS (16:9)

This function converts a normal picture (4:3 aspect ratio) into a wide picture (16:9 aspect ratio).
Use for pictures with a 16:9 aspect ratio that have been squeezed into a normal picture (4:3 aspect ratio), to restore their original dimensions.

1 Press MENU ▲/▼ to display the "MENU 1" menu, then select "COMPRESS (16:9)".



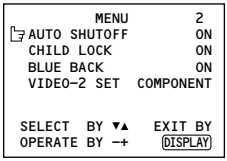
2 Press MENU –/+ to select "ON".

To cancel the COMPRESS (16:9) function, select "OFF".

AUTO SHUTOFF

You can set your TV to turn off if no signals are received for about 15 minutes or longer after the end of a broadcast.

1 Press MENU ▲/▼ to display the "MENU 2" menu, then select "AUTO SHUTOFF".



2 Press MENU –/+ to select "ON".

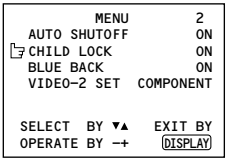
To cancel the AUTO SHUTOFF function, select "OFF".

- The AUTO SHUTOFF function does not turn off the TV's main power.
- The AUTO SHUTOFF will not work for a VIDEO mode.

CHILD LOCK

You can disable the front control buttons of the TV.
When this function is set to "ON", the TV can be operated using only the remote control.
Use this function to prevent children from operating the TV without parental consent.

1 Press MENU ▲/▼ to display the "MENU 2" menu, then select "CHILD LOCK".



2 Press MENU –/+ to select "ON".

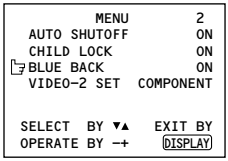
To cancel the CHILD LOCK function, select "OFF".

- The CHILD LOCK function is canceled when you turn the power off.

BLUE BACK

You can mute the sound and change the picture into a blue screen while no signals are received by the TV, or when the signals are unstable.

1 Press MENU ▲/▼ to display the "MENU 2" menu, then select "BLUE BACK".



2 Press MENU –/+ to select "ON".

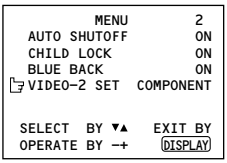
To cancel the BLUE BACK function, select "OFF".

- To view a broadcast even when the reception signal is poor, set the BLUE BACK function to "OFF".
- Even when the BLUE BACK function is set to "OFF", the sound may not be audible.

VIDEO-2 SET

Set the VIDEO-2 SET correctly according to the video signal input from the external device connected to the VIDEO-2 terminal. If this setting is incorrect, images will not be displayed.

1 Press MENU ▲/▼ to display the "MENU 2" menu, then select "VIDEO-2 SET".



2 Set the VIDEO-2 SET according to the video signal input from the VIDEO-2 terminal.

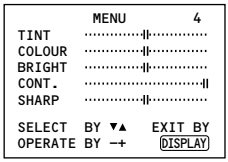
If a normal video signal (composite video signal) is input:
Press the MENU –/+ buttons to select "VIDEO".

If a component video signal ($Y/C_B/C_R$ signals) is input:
Press the MENU –/+ buttons to select "COMPONENT".

Picture Adjustments

You can adjust the picture as you like.

1 Press MENU ▲/▼ to display the "MENU 4" menu.



2 Press MENU ▲/▼ to select an item and press MENU –/+ to adjust it.

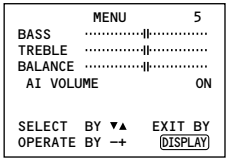
TINT*	- : Reddish	+ : Greenish
COLOUR	- : Lighter	+ : Deeper
BRIGHT	- : Darker	+ : Brighter
CONT.	- : Lower	+ : Higher
SHARP	- : Softer	+ : Sharper

* TINT (tint) is displayed only when viewing images from NTSC3.58 or NTSC4.43 colour systems.

Sound Adjustments

You can adjust the sound as you like.

1 Press MENU ▲/▼ to display the "MENU 5" menu.



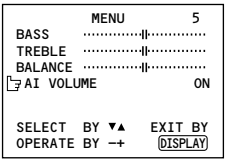
2 Press MENU ▲/▼ to select an item and press MENU –/+ to adjust it.

TREBLE	- : Weaker	+ : Stronger
BASS	- : Weaker	+ : Stronger
BALANCE	- : Left	+ : Right

AI VOLUME

You can prevent the sudden increase or decrease of volume that occurs when changing channels or switching VIDEO modes.

1 Press MENU ▲/▼ to display the "MENU 5" menu, then select "AI VOLUME".



2 Press MENU –/+ to select "ON".

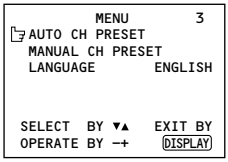
To cancel the AI VOLUME function, select "OFF".

- The AI VOLUME function may not operate as expected if the sound input level from a broadcast station (or video software) is extremely low.
- The AI VOLUME function for TV mode and VIDEO mode can be set separately. For example, you can set it to be off in TV mode and on in VIDEO mode. If you set the AI VOLUME function while viewing a TV channel, the setting is registered as the setting for TV mode. If you set the AI VOLUME function while viewing images from a VIDEO terminal, the setting is registered as the setting for VIDEO mode.

AUTO CH PRESET

You can automatically preset all TV channels that can be received by your TV to channels.

1 Press MENU ▲/▼ to display the "MENU 3" menu, then select "AUTO CH PRESET".



2 Press MENU –/+ to start the AUTO CH PRESET function.

"►►► ON SEARCH" is displayed on the screen.

When all the TV channels that can be received on your TV have been preset, the display goes out and the AUTO CH PRESET function operation is completed.

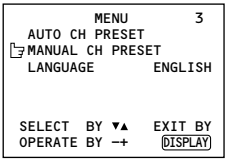
To stop the AUTO CH PRESET:
Press the MENU –/+ button.

- The AUTO CH PRESET function does not preset a TV channel to the AV channel (channel number 0).
- If the TV cannot preset the TV channel you want to view, preset it manually. For details, see "MANUAL CH PRESET" on page 15.

MANUAL CH PRESET

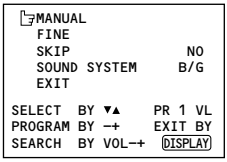
You can manually preset desired TV channels to desired channels.

1 Press MENU ▲/▼ to display the "MENU 3" menu, then select "MANUAL CH PRESET".



2 Press MENU –/+.

The sub-menu is displayed.



- The channel number is displayed as a PR number. For example, channel 1 will be displayed as PR 1. However, the AV channel will be displayed as AV.

3 Press MENU –/+ to select the channel number.

4 Press VOLUME –/+ to start searching for the TV channel.

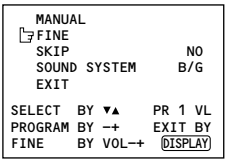
"> > >" or "< < <" is displayed on the screen.

When the TV finds a TV channel, the "> > >" or "< < <" display goes out, and the TV channel is preset to the currently selected channel number.

- If the TV channel you want to preset is not displayed, repeat step 4 until the TV finds the TV channel you want to preset.
- To stop the MANUAL CH PRESET function, press any button other than the VOLUME –/+ button.

If the picture is not clear:
Fine-tune the TV channel.

1 Press MENU ▲/▼ to select "FINE".

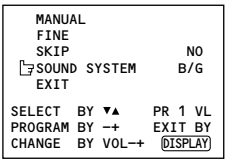


2 Hold VOLUME –/+ down to fine-tune the TV channel so that the best image is displayed on screen.

"> " or "< " indicates that the TV is fine-tuning the TV channel.

If the sound is not clear:

1 Press MENU ▲/▼ to select "SOUND SYSTEM".



2 Press VOLUME –/+ to select the appropriate sound system.

- For the sound systems in each country or region, refer to the table "Broadcasting systems" on page 20.

5 Press MENU ▲/▼ to select "MANUAL".

6 Repeat steps 3 to 5 if you want to preset another TV channel to a channel.

SKIP

You can set undesired channels to be skipped. Channels set to be skipped cannot be selected by the CHANNEL –/+ buttons nor the CHANNEL SCAN button.

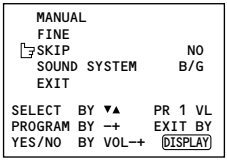
• Channels to which TV channels have not been preset are automatically set to be skipped.

1 Press MENU ▲/▼ to display the "MENU 3" menu, then select "MANUAL CH PRESET".

2 Press MENU –/+.

The sub-menu is displayed.

3 Press MENU ▲/▼ to select "SKIP".



4 Press MENU –/+ to select the channel you want to skip.

5 Press VOLUME –/+ to select "YES".

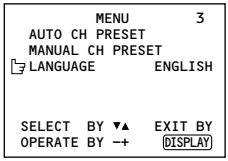
The channel is set to be skipped.
To cancel the SKIP function, select "NO".

6 Repeat steps 4 and 5 if you want to set another channel to skip.

LANGUAGE

You can select the language for the on-screen display.

1 Press MENU ▲/▼ to display the "MENU 3" menu, then select "LANGUAGE".



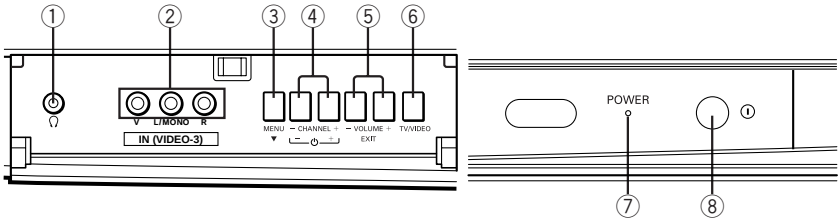
2 Press MENU –/+ to select language.

The on-screen display indications are in the selected language.

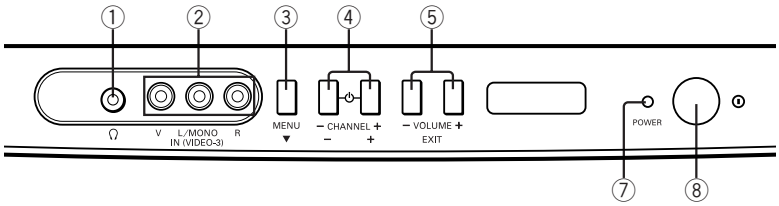
TV buttons and parts

Front

< AV-29L91 >

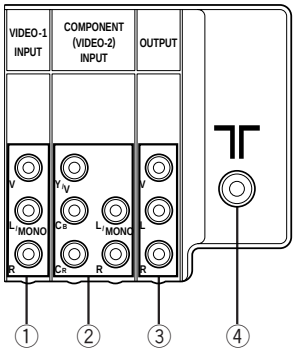


< AV-21L91 and AV-25L91 >



① Headphone jack
② VIDEO-3 terminal
③ MENU button
④ CHANNEL –/+ buttons
⑤ VOLUME –/+ buttons
⑥ TV/VIDEO button
⑦ POWER lamp
⑧ Main power button

Rear



① VIDEO-1 INPUT terminal
② COMPONENT (VIDEO-2) INPUT terminal
③ OUTPUT terminal
④ Aerial socket

Basic operation

• Check to make sure the CHILD LOCK function is set to “OFF”. When the CHILD LOCK function is set to “ON”, the TV cannot be operated using the front control buttons. For details, see “CHILD LOCK” on page 12.

1 Press CHANNEL –/+ to turn the TV on from standby mode.

2 Press CHANNEL –/+ to select a channel.

3 Press VOLUME –/+ to adjust the volume.

4 To turn your TV off, press the Main power button to turn off the TV’s main power.

To change the TV mode to the VIDEO mode:

• Press the TV/VIDEO button if the TV has one. See page 6.
• If the TV has no TV/VIDEO button, select the VIDEO mode with the INPUT function in “MENU 1”.

Operating menus

You can operate functions in menus using the front control buttons on the TV.

1 Press MENU ▼ to display a menu.

2 Press MENU ▼ repeatedly to display the menu you want to use.

3 Press MENU ▼ to select the desired function or item.

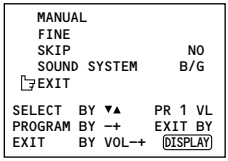
4 Press MENU –/+ or VOLUME –/+ to carry out the desired operation.

For details, see the description for each function.

5 Press VOLUME –/+ to turn the menu display off.

To turn the sub-menu display off:

1 Press MENU ▼ to select “EXIT”.



2 Press VOLUME –/+ to turn the display off.

Troubleshooting

If there is no picture or the TV does not operate normally, make sure the problem isn't due to the reasons indicated below.
If the problem persists even after taking the measures indicated, please contact a service technician.

Cannot turn the TV on

- Press the Main power button on the TV.
- Connect the power cord to the AC outlet.

The screen turns blue

- Is the BLUE BACK function on? (see page 12.)

Remote control inoperable

- Replace the batteries. (see page 2.)

Buttons on front of the TV do not work

- Switch the CHILD LOCK function off. (see page 12.)

TV does not respond immediately

- Press the main power button on the TV to turn off the main power. Press the main power button again to turn on the TV. If the TV returns to a normal state, operation is normal.

The TV turns off suddenly

- Is the OFF TIMER function set to operate? (see page 8.)
- Is the AUTO SHUTOFF function on? (see page 12.)

Poor sound

- Press the SOUND SYSTEM button to select another sound system. (see page 7.)
- Adjust the sound settings. (see page 13.)
- If there is noise during mono sound output, press the **I/II** button to select "MONO". (see page 8.)

Poor picture

- Press the COLOUR SYSTEM button to select another colour system. (see page 7.)
- Adjust the picture settings. (see page 13.)
- Is a component signal output device, such as a DVD player, connected correctly? (see page 4.)
- Is the "VIDEO-2 SET" function setting correct? (see page 13.)
- If noise (snow) totally blocks out the picture, check the following.
  - Have the TV and aerial been connected properly?
  - Has the aerial cable been damaged?
  - Is the aerial pointing in the right direction?
  - Is the aerial itself faulty?
- If the TV or aerial suffer interference from other equipment, stripes or noise may appear in the picture. Move any equipment which can cause interference away from the TV.
- If the TV or aerial suffer interference from signals reflecting from mountains or buildings, double-pictures (ghosting) will occur. Change the aerial's direction or replace it with an aerial with better directionality.
- When a white and bright still image (such as a white dress) is displayed on the screen, the white part may look as if it is coloured. When the image disappears from the screen, the unnatural colours will also disappear.

The picture is tilted

< AV-29L91 only >

- A picture may be tilted due to the influence of the earth's magnetism. In this case, use the PICTURE TILT function to adjust the tilt. (see page 11.)

Specifications

TV RF systems

B, G, I, D, K, K1, M

Colour systems

PAL, SECAM, NTSC 3.58 MHz, NTSC 4.43 MHz

Channel and frequencies

VHF low channel (VL), VHF high channel (VH), UHF channel (U)
Receives cable channels in mid band, super band and hyper band.

External input / output

VIDEO-1:	VIDEO input, AUDIO L/R input
VIDEO-2/COMPONENT:	VIDEO input, AUDIO L/R input, COMPONENT VIDEO ($Y/C_B/C_R$) input
VIDEO-3:	VIDEO input, AUDIO L/R input
OUTPUT:	VIDEO output , AUDIO L/R output
Headphone jack:	stereo mini jack (3.5 mm diameter)

Sound-multiplex systems

A2 or NICAM (B/G, I, DK)

Design and specifications subject to change without notice.

Broadcasting systems

Area	Country or Region	System	
		Colour	Sound
Asia, Middle East	Bahrain, Kuwait, Oman, Qatar, United Arab Emirates, Yemen, etc. Indonesia, Malaysia, Singapore, Thailand, India, etc.	PAL	B/G
	China, Vietnam, etc.	PAL	D/K
	Hong Kong, etc.	PAL	I
	Islamic Republic of Iran, Lebanon, Saudi Arabia, etc.	SECAM	B/G
	Philippines, Taiwan, Myanmar, etc.	NTSC	M
Europe	Russia, etc.	SECAM	D/K
	Czech Republic, Poland, etc.	PAL	D/K
	Germany, Holland, Belgium, etc.	PAL	B/G
	UK, etc.	PAL	I
Oceania	Australia, New Zealand, etc.	PAL	B/G
Africa	Republic of South Africa, etc.	PAL	I
	Nigeria, etc.	PAL	B/G
	Egypt, Morocco, etc.	SECAM	B/G

PARTS LIST

CAUTION

- The parts identified by the ⚠ symbol are important for the safety . Whenever replacing these parts, be sure to use specified ones to secure the safety .
- The parts not indicated in this Parts List and those which are filled with lines --- in the Parts No. columns will not be supplied .
- P. W. Board Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied .

ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS		CAPACITORS	
C R	Carbon Resistor	C CAP.	Ceramic Capacitor
F R	Fusible Resistor	E CAP.	Electrolytic Capacitor
P R	Plate Resistor	M CAP.	Mylar Capacitor
V R	Variable Resistor	HV CAP.	High Voltage Capacitor
HV R	High Voltage Resistor	MF CAP.	Metalized Film Capacitor
MF R	Metal Film Resistor	MM CAP.	Metalized Mylar Capacitor
MG R	Metal Glazed Resistor	MP CAP.	Metalized Polystyrol Capacitor
MP R	Metal Plate Resistor	PP CAP.	Polypropylene Capacitor
OM R	Metal Oxide Film Resistor	PS CAP.	Polystyrol Capacitor
CMF R	Coating Metal Film Resistor	TF CAP.	Thin Film Capacitor
UNF R	Non-Flammable Resistor	MPP CAP.	Metalized Polypropylene Capacitor
CH V R	Chip Variable Resistor	TAN. CAP.	Tantalum Capacitor
CH MG R	Chip Metal Glazed Resistor	CH C CAP.	Chip Ceramic Capacitor
COMP. R	Composition Resistor	BP E CAP.	Bi-Polar Electrolytic Capacitor
LPTC R	Linear Positive Temperature Coefficient Resistor	CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
		CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
		CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
		CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

RESISTORS									
F	G	J	K	M	N	R	H	Z	P
±1%	±2%	±5%	±10%	±20%	±30%	+30% -10%	+50% -10%	+80% -20%	+100% 0%

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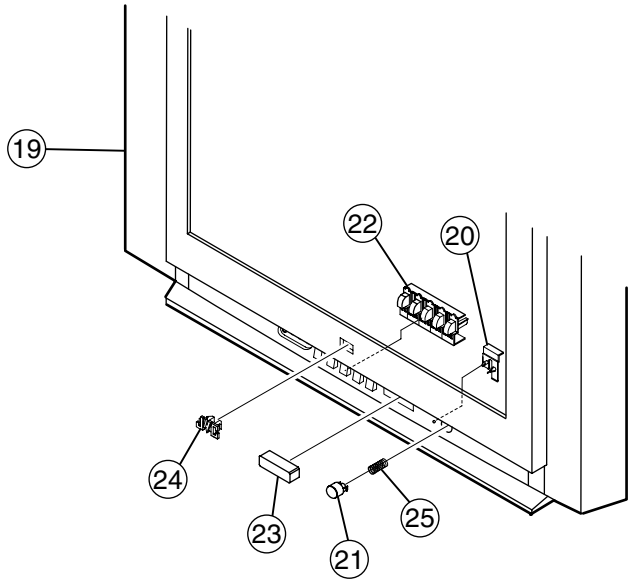
USING P.W. BOARD & REMOTE CONTROL UNIT

P.W.B ASS'Y \ Model	AV-21L91-BK	AV-25L91-BK	AV-29L91-BK
MAIN PWB	SCH-1051A-BK	SCH-1052A-BK	SCH-1053A-BK
CRT SOCKET PWB	—	—	SCH-3001A-BK
FRONT CONTROL PWB	—	—	SCH-8001A-BK
REMOTE CONTROL UNIT	RM-C353-1C	←	←

EXPLODED VIEW PARTS LIST-I [AV-21L91-BK, AV-25L91-BK]

⚠	Ref.No.	Part No.	Part Name	Description	Local
	19	GG10129-016A-H	FRONT CABI	[AV-21L91-BK]	
	19	GG10133-012A-H	FRONT CABI	[AV-25L91-BK]	
	20	GG30021-001A-H	LED LENS		
	21	GG30019-001B-H	POWER KNOB		
	22	GG20006-001A-H	CONTROL KNOB		
	23	GG30020-001A-H	E.E.WINDOW		
	24	CM48125-009	JVC MARK		
	25	CM35235-003-H	SPRING		

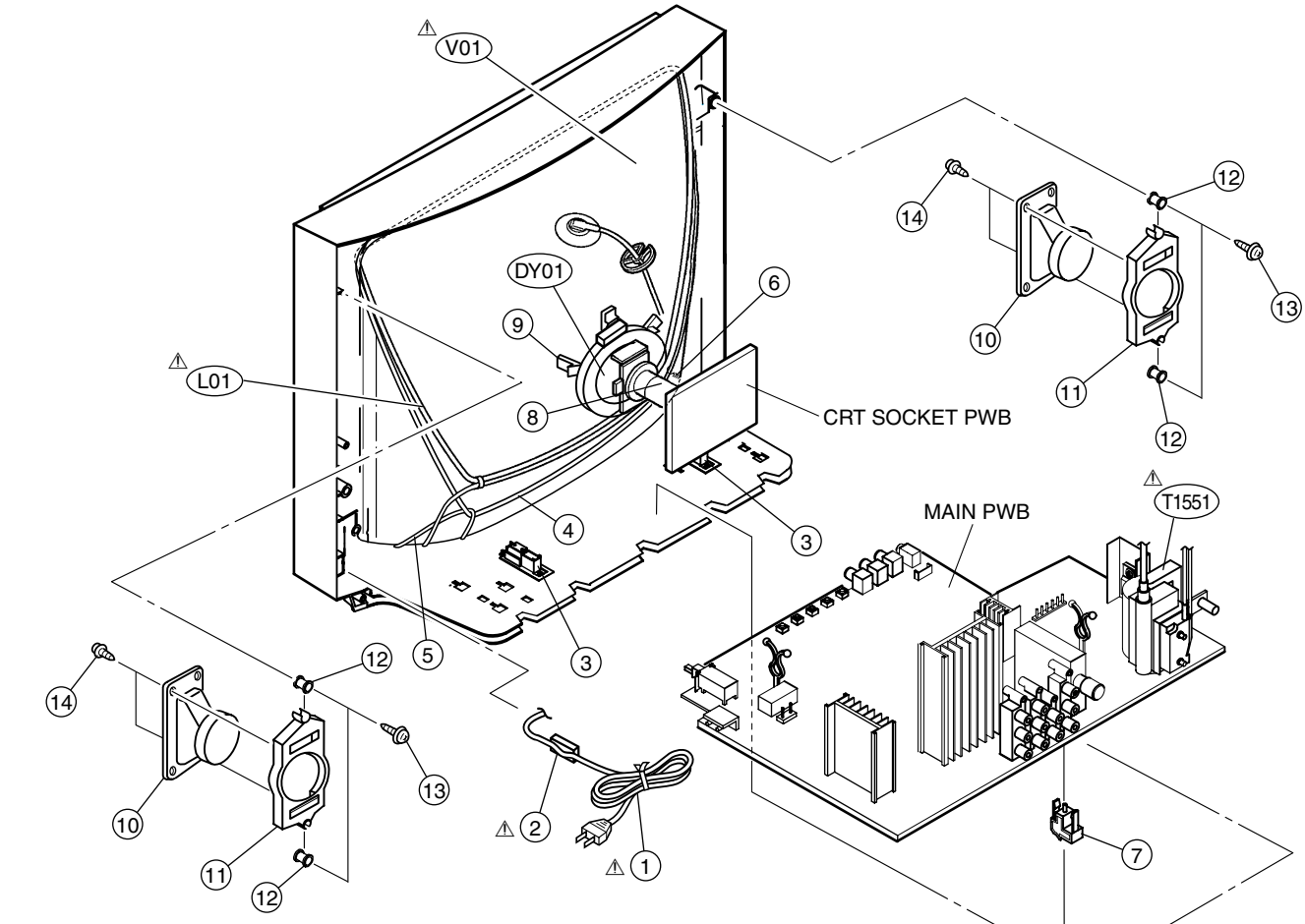
EXPLODED VIEW-I [AV-21L91-BK, AV-25L91-BK]

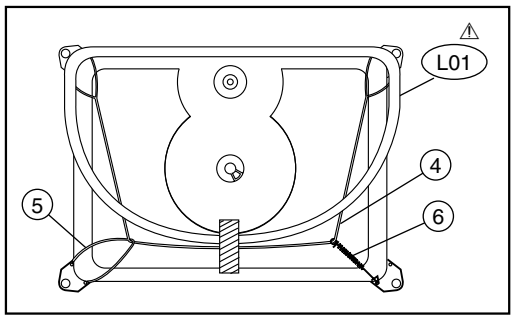


EXPLODED VIEW PARTS LIST-Ⅱ [AV-21L91-BK, AV-25L91-BK]

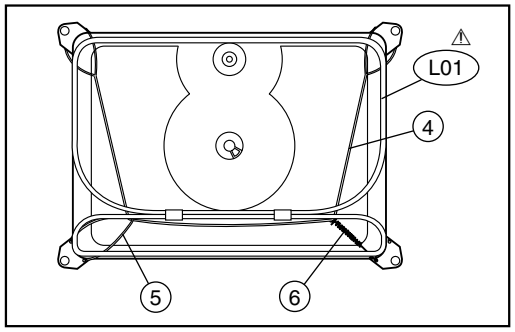
⚠	Ref.No.	Part No.	Part Name	Description	Local
⚠	V01	A51QDX992X	PICTURE TUBE	[AV-21L91-BK]	
⚠	V01	A59QDF891X	PICTURE TUBE	[AV-25L91-BK]	
⚠	L01	QQW0118-001	DEG COIL	[AV-21L91-BK]	
⚠	L01	QQW0119-001	DEG COIL	[AV-25L91-BK]	
	DY01	QQD0060-002	DEFLECTION YOKE	[AV-21L91-BK]	
	DY01	QQD0062-001	DEFLECTION YOKE	[AV-25L91-BK]	
⚠	T1551	QQH0104-001	FBT	[AV-21L91-BK]	
⚠	T1551	QQH0097-001	FBT	[AV-25L91-BK]	
⚠	1	QMPR010-200-E2	POWER CORD		
⚠	2	CM47005-A01-H	CORD CLAMP		
	3	CM36623-B01-H	CHASSIS RAIL	(X2)	
	4	CHGB0028-0A	BRAIDED ASSY	[AV-21L91-BK]	
	4	WJY0018-001A	BRAIDED ASSY	[AV-25L91-BK]	
	5	CHGB0017-0C	BRAIDED ASSY (SUB)		
	6	A48457-3-H	SPRING		
	7	CM48144-002-H	PB STOPPER		
	8	A75034-B	PC MAGNET		
	9	CE40764-00A	WEDGE ASSY	(X3) [AV-21L91-BK]	
	9	CE40764-00A	WEDGE ASSY	(X4) [AV-25L91-BK]	
	10	QAS0101-001	SPEAKER	(X2) SP01, SP02	
	11	LC20371-001D-H	SP HOLDER	(X2)	
	12	LC40226-003A-H	SPACER	(X4)	
	13	LC40317-002A-H	TAPPING SCREW	(X4)	
	14	QYSBSB4012Z	TAPPING SCREW	(X4)	
⚠	15	GG10130-001B-H	REAR COVER	[AV-21L91-BK]	
⚠	15	GG10134-001B-H	REAR COVER	[AV-25L91-BK]	
	16	QYSBSFG4016Z	TAPPING SCREW	(X7) [AV-21L91-BK]	
	16	QYSBSFG4016Z	TAPPING SCREW	(X9) [AV-25L91-BK]	
	17	QYSBSF3010Z	TAPPING SCREW	(X4)	
⚠	18	CM22960-097-H	RATING LABEL	[AV-21L91-BK]	
⚠	18	CM22960-095-H	RATING LABEL	[AV-25L91-BK]	

EXPLODED VIEW-Ⅱ [AV-21L91-BK, AV-25L91-BK]

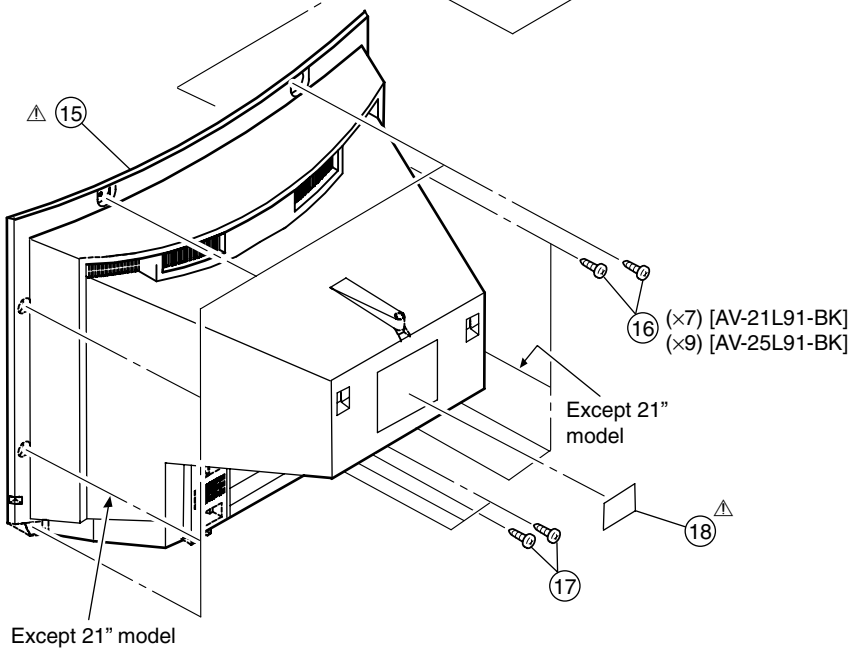




[AV-21L91-BK]



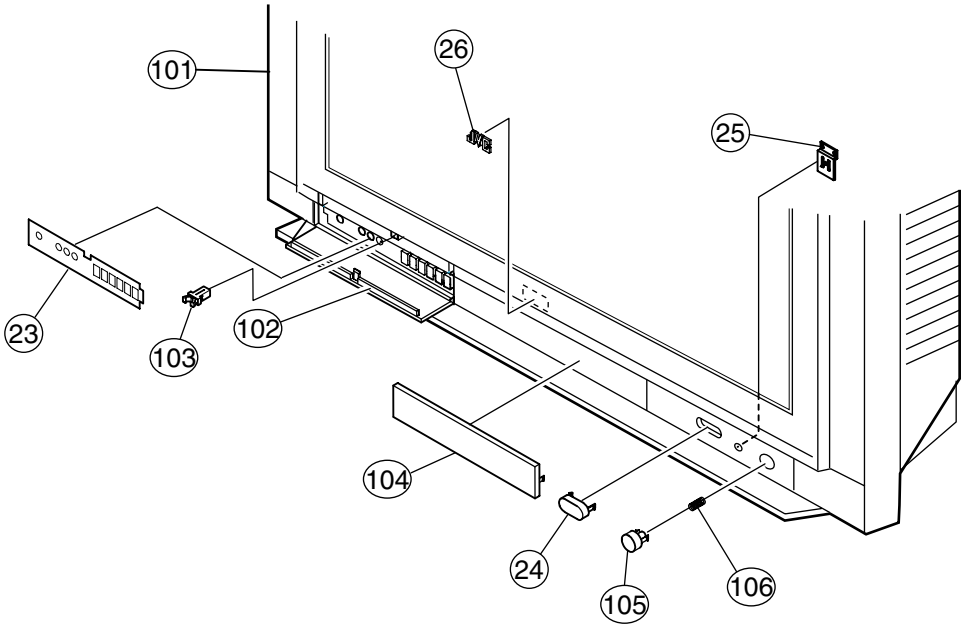
[AV-25LL91BK]



EXPLODED VIEW PARTS LIST-Ⅲ [AV-29L91-BK]

⚠	Ref.No.	Part No.	Part Name	Description	Local
	23	LC20778-001A-H	OPERATION SHEET		
	24	LC31474-001A-H	CONTROL WINDOW		
	25	LC31476-001B-H	LED LENS		
	26	LC41037-001A	JVC MARK		
	101	LC11193-012A-H	FRONT CABI ASSY	Inc.No.102–106	
	102	LC20776-002A-H	DOOR		
	103	CM48229-00A-C	DOOR LATCH		
	104	LC20777-001D-H	CENTRE PLATE		
	105	LC31475-001B-H	POWER KNOB		
	106	CM35235-003-H	SPRING		

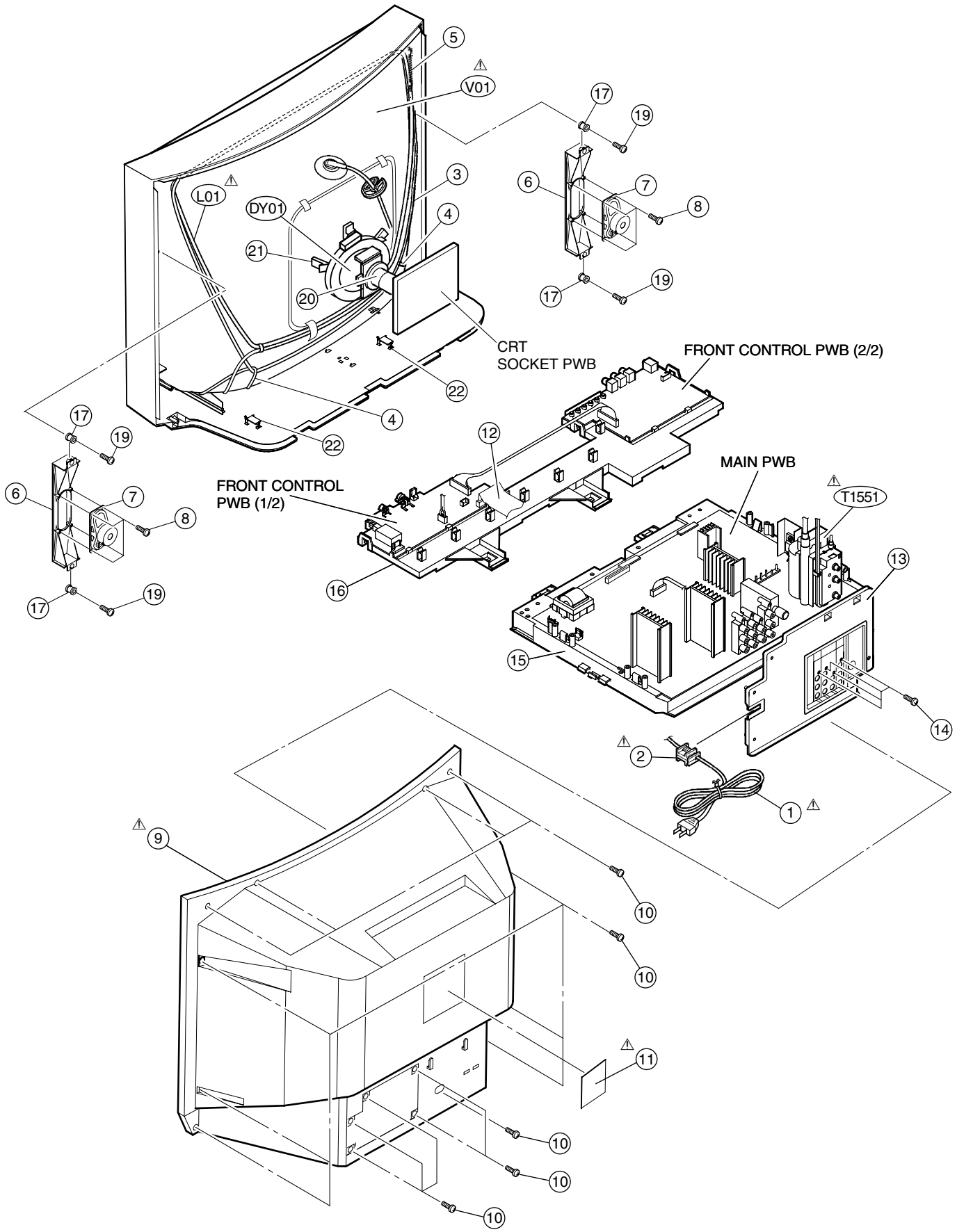
EXPLODED VIEW-Ⅲ [AV-29L91-BK]



EXPLODED VIEW PARTS LIST-Ⅳ [AV-29L91-BK]

⚠	Ref.No.	Part No.	Part Name	Description	Local
⚠	V01	A68QCU259X	PICTURE TUBE		
⚠	L01	QQW0113-001	DEG COIL		
	DY01	QQD0057-001	DEF YOKE		
⚠	T1551	QQH0096-001	FBT		
⚠	1	QMPR010-200-E2	POWER CORD		
⚠	2	CM23167-A01-H	CORD CLAMP		
	3	WJY0018-001A	BRAIDED ASSY		
	4	CHGB0017-0C	BRAIDED SUB ASSY	(X2)	
	5	A48457-3-H	SPRING		
	6	LC11063-001C-H	SP HOLDER	(X2)	
	7	QAS0083-001	SPEAKER	(X2) SP01, SP02	
	8	QYSBSBG4016Z	TAPPING SCREW	(X8)	
⚠	9	LC10763-004A-HH	REAR COVER		
	10	QYSBSFG4016Z	TAPPING SCREW	(X16)	
⚠	11	CM22960-096-H	RATING LABEL		
	12	CHFD125-18BD-N	FFC WIRE		
	13	LC11064-002A-H	AV TERMINAL BOARD		
	14	QYSBSF3012M	TAPPING SCREW	(X4)	
	15	LC11061-001A-H	CHASSIS BASE		
	16	LC11062-001D-H	CONTROL BASE		
	17	LC40226-003A-H	SPACER	(X4)	
	19	LC40317-002A-H	TAPPING SCREW	(X4)	
	20	CE42568-00A	PC MAGNET		
	21	CE40764-00A	WEDGE ASSY	(X4)	
	22	LC30103-001B-H	CHASSIS ADAPTER	(X2)	

EXPLODED VIEW-Ⅳ [AV-29L91-BK]



PRINTED WIRING BOARD PARTS LIST (AV-21L91-BK)

MAIN PW BOARD ASS'Y(SCH-1051A-BK)

RESISTOR

⚠	Symbol No.	Part No.	Part Name	Description	Local
	R1001-02	NRSA63J-221X	MG R	220Ω 1/16W	J
	R1003	NRSA63J-392X	MG R	3.9kΩ 1/16W	J
	R1004	NRSA63J-221X	MG R	220Ω 1/16W	J
	R1006	NRSA63J-273X	MG R	27kΩ 1/16W	J
	R1101	NRSA63J-100X	MG R	10Ω 1/16W	J
	R1102	NRSA63J-682X	MG R	6.8kΩ 1/16W	J
	R1103	NRSA63J-272X	MG R	2.7kΩ 1/16W	J
	R1104	NRSA63J-181X	MG R	180Ω 1/16W	J
	R1105	NRSA63J-220X	MG R	22Ω 1/16W	J
	R1106	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1107	NRSA63J-472X	MG R	4.7kΩ 1/16W	J
	R1108-10	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1111	NRSA63J-102X	MG R	1kΩ 1/16W	J
	R1112	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1113	NRSA63J-271X	MG R	270Ω 1/16W	J
	R1114	NRSA63J-821X	MG R	820Ω 1/16W	J
	R1115	NRSA63J-181X	MG R	180Ω 1/16W	J
	R1117	NRSA63J-102X	MG R	1kΩ 1/16W	J
	R1119	NRSA63J-102X	MG R	1kΩ 1/16W	J
	R1120	NRSA63J-471X	MG R	470Ω 1/16W	J
	R1150	NRSA63J-331X	MG R	330Ω 1/16W	J
	R1151	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1152	NRSA63J-121X	MG R	120Ω 1/16W	J
	R1153	NRSA63J-122X	MG R	1.2kΩ 1/16W	J
	R1154	NRSA63J-181X	MG R	180Ω 1/16W	J
	R1301-02	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1303	NRSA63J-562X	MG R	5.6kΩ 1/16W	J
	R1304-05	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1306	NRSA63J-562X	MG R	5.6kΩ 1/16W	J
	R1350-51	NRSA63J-151X	MG R	150Ω 1/16W	J
	R1353	NRSA63J-151X	MG R	150Ω 1/16W	J
	R1354	QRE121J-222Y	C R	2.2kΩ 1/2W	J
	R1361	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	R1362	NRSA63J-472X	MG R	4.7kΩ 1/16W	J
	R1363	QRZ0107-152Z	C R	1.5kΩ 1/2W	K
	R1364	QRE121J-222Y	C R	2.2kΩ 1/2W	J
	R1365	QRZ0107-152Z	C R	1.5kΩ 1/2W	K
	R1366	QRZ0107-474Z	C R	470kΩ 1/2W	K
	R1367	QRE121J-821Y	C R	820Ω 1/2W	J
	R1368	QRZ0107-152Z	C R	1.5kΩ 1/2W	K
	R1369	QRE121J-222Y	C R	2.2kΩ 1/2W	J
	R1373	QRE121J-394Y	C R	390kΩ 1/2W	J
	R1374	QRE121J-124Y	C R	120kΩ 1/2W	J
	R1377	QRL029J-473	OM R	47kΩ 2W	J
	R1380-83	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1384	NRSA63J-223X	MG R	22kΩ 1/16W	J
	R1401	NRSA63J-224X	MG R	220kΩ 1/16W	J
	R1403	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	R1405	NRSA63J-682X	MG R	6.8kΩ 1/16W	J
	R1406	NRSA63J-123X	MG R	12kΩ 1/16W	J
	R1408	NRSA63J-682X	MG R	6.8kΩ 1/16W	J
	R1410	NRSA63J-123X	MG R	12kΩ 1/16W	J
	R1411	QRG01GJ-221	OM R	220Ω 1W	J
	R1412	QRE121J-1R0Y	C R	1.0Ω 1/2W	J
	R1413	QRX01GJ-2R7	MF R	2.7Ω 1W	J
	R1414	QRE121J-151Y	C R	150Ω 1/2W	J
	R1425	NRSA63J-683X	MG R	68kΩ 1/16W	J
	R1521	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1522	NRSA63J-102X	MG R	1kΩ 1/16W	J
	R1524	QRL02EJ-270X	OM R	27Ω 2W	J
	R1526	QRG01GJ-271	OM R	270Ω 1W	J
	R1527	QRL03EJ-103X	OM R	10kΩ 3W	J
	R1528-29	QRX029J-1R2	MF R	1.2Ω 2W	J
	R1531	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
⚠	R1532	QRZ9017-4R7	F R	4.7Ω 1/4W	J
⚠	R1540	QRZ9011-4R7	F R	4.7Ω 1/2W	J
	R1541-42	QRE121J-154Y	C R	150kΩ 1/2W	J
	R1543	QRE121J-471Y	C R	470Ω 1/2W	J
	R1545	QRE121J-220Y	C R	22Ω 1/2W	J
	R1546	QRE121J-822Y	C R	8.2kΩ 1/2W	J
	R1591	QRE121J-222Y	C R	2.2kΩ 1/2W	J
	R1592	QRZ0221-2R2	UNF R	2.2Ω	

⚠	Symbol No.	Part No.	Part Name	Description	Local
	R1593	NRSA63J-102X	MG R	1kΩ 1/16W	J
	R1594	QRE121J-183Y	C R	18kΩ 1/2W	J
	R1595	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1602	NRSA63J-271X	MG R	270Ω 1/16W	J
	R1603-04	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1605	QRE141J-0R0Y	C R	0.0Ω 1/4W	J
	R1621-22	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1650	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1651	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	R1652-53	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1654	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1655	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	R1658-59	QRE121J-2R2Y	C R	2.2Ω 1/2W	J
	R1660	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1661	NRSA63J-683X	MG R	68kΩ 1/16W	J
	R1662	NRSA63J-333X	MG R	33kΩ 1/16W	J
	R1663	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1664	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1665-66	QRE141J-561Y	C R	560Ω 1/4W	J
	R1667	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1668	NRSA63J-683X	MG R	68kΩ 1/16W	J
	R1669	NRSA63J-563X	MG R	56kΩ 1/16W	J
	R1670	NRSA63J-153X	MG R	15kΩ 1/16W	J
	R1671	NRSA63J-272X	MG R	2.7kΩ 1/16W	J
	R1672	NRSA63J-563X	MG R	56kΩ 1/16W	J
	R1673-74	NRSA63J-683X	MG R	68kΩ 1/16W	J
	R1675	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1676-77	NRSA63J-472X	MG R	4.7kΩ 1/16W	J
	R1678	NRSA63J-153X	MG R	15kΩ 1/16W	J
	R1679	NRSA63J-272X	MG R	2.7kΩ 1/16W	J
	R1680	NRSA63J-683X	MG R	68kΩ 1/16W	J
	R1688	NRSA63J-273X	MG R	27kΩ 1/16W	J
	R1690	NRSA63J-104X	MG R	100kΩ 1/16W	J
	R1691	NRSA63J-682X	MG R	6.8kΩ 1/16W	J
	R1692	NRSA63J-104X	MG R	100kΩ 1/16W	J
	R1693	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1696	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1698-99	NRSA63J-104X	MG R	100kΩ 1/16W	J
	R1701	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1702-03	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1704-06	NRSA63J-102X	MG R	1kΩ 1/16W	J
	R1707-10	NRSA63J-472X	MG R	4.7kΩ 1/16W	J
	R1711-14	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1715-17	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1718-19	NRSA63J-221X	MG R	220Ω 1/16W	J
	R1720	NRSA63J-102X	MG R	1kΩ 1/16W	J
	R1721-24	NRSA63J-221X	MG R	220Ω 1/16W	J
	R1725	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1726	NRSA63J-472X	MG R	4.7kΩ 1/16W	J
	R1727	NRSA63J-104X	MG R	100kΩ 1/16W	J
	R1728	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1730	NRSA63J-223X	MG R	22kΩ 1/16W	J
	R1731	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1732	NRSA63J-393X	MG R	39kΩ 1/16W	J
	R1733	NRSA63J-273X	MG R	27kΩ 1/16W	J
	R1734	NRSA63J-391X	MG R	390Ω 1/16W	J
	R1735	NRSA63J-104X	MG R	100kΩ 1/16W	J
	R1736	NRSA63J-333X	MG R	33kΩ 1/16W	J
	R1737	NRSA63J-272X	MG R	2.7kΩ 1/16W	J
	R1738	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1739-41	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1742	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	R1743	QRE141J-102Y	C R	1kΩ 1/4W	J
	R1744	NRSA63J-561X	MG R	560Ω 1/16W	J
	R1745	NRSA63J-105X	MG R	1MΩ 1/16W	J
	R1746	NRSA63J-333X	MG R	33kΩ 1/16W	J
	R1747	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1748-49	NRSA02J-475X	MG R	4.7MΩ 1/10W	J
	R1750-51	QRE141J-0R0Y	C R	0.0Ω 1/4W	J
	R1755-56	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1757-58	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1760	NRSA63J-682X	MG R	6.8kΩ 1/16W	J

⚠	Symbol No.	Part No.	Part Name	Description		Local
RESISTOR						
	R1770	QRE121J-271Y	C R	270Ω	1/2W	J
	R1771	NRSA63J-102X	MG R	1kΩ	1/16W	J
	R1772	QRE121J-271Y	C R	270Ω	1/2W	J
	R1773	NRSA63J-102X	MG R	1kΩ	1/16W	J
	R1775	NRSA63J-332X	MG R	3.3kΩ	1/16W	J
	R1776	NRSA63J-392X	MG R	3.9kΩ	1/16W	J
	R1777	NRSA63J-682X	MG R	6.8kΩ	1/16W	J
	R1779	NRSA63J-272X	MG R	2.7kΩ	1/16W	J
	R1780	NRSA63J-471X	MG R	470Ω	1/16W	J
	R1781	NRSA63J-122X	MG R	1.2kΩ	1/16W	J
	R1782	NRSA63J-181X	MG R	180Ω	1/16W	J
	R1783	NRSA63J-221X	MG R	220Ω	1/16W	J
	R1784	NRSA63J-331X	MG R	330Ω	1/16W	J
	R1785	NRSA63J-471X	MG R	470Ω	1/16W	J
	R1803	NRSA63J-333X	MG R	33kΩ	1/16W	J
	R1804-05	NRSA63J-750X	MG R	75Ω	1/16W	J
	R1808	NRSA63J-823X	MG R	82kΩ	1/16W	J
	R1809	NRSA63J-391X	MG R	390Ω	1/16W	J
	R1810	NRSA63J-823X	MG R	82kΩ	1/16W	J
	R1811	NRSA63J-391X	MG R	390Ω	1/16W	J
	R1812	NRSA63J-104X	MG R	100kΩ	1/16W	J
	R1813	NRSA63J-222X	MG R	2.2kΩ	1/16W	J
	R1815	NRSA63J-101X	MG R	100Ω	1/16W	J
	R1818	NRSA63J-222X	MG R	2.2kΩ	1/16W	J
	R1820	NRSA63J-101X	MG R	100Ω	1/16W	J
	R1821	NRSA63J-222X	MG R	2.2kΩ	1/16W	J
	R1823	NRSA63J-101X	MG R	100Ω	1/16W	J
	R1824	NRSA63J-222X	MG R	2.2kΩ	1/16W	J
	R1826	NRSA63J-101X	MG R	100Ω	1/16W	J
	R1829	NRSA63J-750X	MG R	75Ω	1/16W	J
	R1830-31	NRSA63J-222X	MG R	2.2kΩ	1/16W	J
	R1832	NRSA63J-122X	MG R	1.2kΩ	1/16W	J
	R1833	NRSA63J-102X	MG R	1kΩ	1/16W	J
	R1834-35	NRSA63J-562X	MG R	5.6kΩ	1/16W	J
	R1836	NRSA63J-750X	MG R	75Ω	1/16W	J
	R1837	NRSA63J-101X	MG R	100Ω	1/16W	J
	R1838	QRK126J-121X	C R	120Ω	1/2W	J
	R1839-40	QRE121J-221Y	C R	220Ω	1/2W	J
	R1841-42	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J
	R1843	NRSA63J-821X	MG R	820Ω	1/16W	J
	R1844	NRSA63J-222X	MG R	2.2kΩ	1/16W	J
	R1845	NRSA63J-102X	MG R	1kΩ	1/16W	J
	R1846	NRSA63J-222X	MG R	2.2kΩ	1/16W	J
	R1847	NRSA63J-103X	MG R	10kΩ	1/16W	J
	R1848	NRSA63J-471X	MG R	470Ω	1/16W	J
	R1849	NRSA63J-221X	MG R	220Ω	1/16W	J
	R1880	NRSA63J-202X	MG R	2kΩ	1/16W	J
	R1881	NRSA63J-103X	MG R	10kΩ	1/16W	J
	R1882	NRSA63J-471X	MG R	470Ω	1/16W	J
	R1883	NRSA63J-181X	MG R	180Ω	1/16W	J
	R1884-85	QRE141J-750Y	C R	75Ω	1/4W	J
	R1902	QRF154K-2R2	UNF R	2.2Ω		K
	R1904	QRE121J-681Y	C R	680Ω	1/2W	J
	R1905	QRM034J-R22	MP R	0.22Ω	3W	J
	R1907	NRSA63J-563X	MG R	56kΩ	1/16W	J
	R1908	QRL039J-333	OM R	33kΩ	3W	J
	R1909	QRE121J-474Y	C R	470kΩ	1/2W	J
	R1910	QRE121J-392Y	C R	3.9kΩ	1/2W	J
	R1911	QRE121J-332Y	C R	3.3kΩ	1/2W	J
	R1912	NRSA63J-182X	MG R	1.8kΩ	1/16W	J
⚠	R1915	QRZ0111-474	C R	470kΩ	1/2W	K
	R1952	NRSA63J-332X	MG R	3.3kΩ	1/16W	J
	R1953	NRSA63J-101X	MG R	100Ω	1/16W	J
	R1954	QRE121J-560Y	C R	56Ω	1/2W	J
	R1955	QRG01GJ-330	OM R	33Ω	1W	J
	R1956	QRE121J-100Y	MF R	10Ω	1/2W	J
	R1957	QRE121J-6R8Y	C R	6.8Ω	1/2W	J
	R1960	NRSA63J-391X	MG R	390Ω	1/16W	J
	R1961	QRL02EJ-223X	OM R	22kΩ	2W	J
	R1962	NRSA63J-561X	MG R	560Ω	1/16W	J
	R1963	QRE121J-103Y	C R	10kΩ	1/2W	J
	R1964	NRSA63J-473X	MG R	47kΩ	1/16W	J

⚠	Symbol No.	Part No.	Part Name	Description		Local
RESISTOR						
	R1965	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J
	R1966	NRSA63J-682X	MG R	6.8kΩ	1/16W	J
	R1967	NRSA63J-473X	MG R	47kΩ	1/16W	J
	R1970	NRSA63J-153X	MG R	15kΩ	1/16W	J
	R1971	NRSA63J-183X	MG R	18kΩ	1/16W	J
⚠	R1991	QRZ0057-825	C R	8.2MΩ	1W	J
CAPACITOR						
	C1001	NCB31HK-103X	C CAP.	0.01µF	50V	K
	C1002	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1003	QFV71HJ-104Z	MF CAP.	0.1µF	50V	J
	C1004	QETN1CM-477Z	E CAP.	470µF	16V	M
	C1005	NCB31HK-222X	C CAP.	2200pF	50V	K
	C1006	QETN1CM-336Z	E CAP.	33µF	16V	M
	C1007	NCB31HK-103X	C CAP.	0.01µF	50V	K
	C1101-05	NCB31HK-472X	C CAP.	4700pF	50V	K
	C1106-07	NCB31HK-103X	C CAP.	0.01µF	50V	K
	C1108	NCB31HK-472X	C CAP.	4700pF	50V	K
	C1109	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1150-51	NCB31HK-472X	C CAP.	4700pF	50V	K
	C1308	NCB31HK-103X	C CAP.	0.01µF	50V	K
	C1352	QFK62EK-104Z	MM CAP.	0.1µF	250V	K
	C1353	QETN2EM-475Z	E CAP.	4.7µF	250V	M
	C1354	QCZ0131-222	C CAP.	2200pF	2000V	K
	C1355	QCZ0131-472	C CAP.	4700pF	2000V	K
	C1356	QETN1CM-107Z	E CAP.	100µF	16V	M
	C1357	NDC31HJ-101X	C CAP.	100pF	50V	J
	C1358	QETN1CM-477Z	E CAP.	470µF	16V	M
	C1401	QETN1HM-105Z	E CAP.	1µF	50V	M
	C1402	QCB31HK-682Z	C CAP.	6800pF	50V	K
	C1403	QEHR1VM-227Z	E CAP.	220µF	35V	M
	C1406	QFLC2AJ-683Z	M CAP.	0.068µF	100V	J
	C1408	QFV71HJ-184Z	MF CAP.	0.18µF	50V	J
	C1411-12	NCF21HZ-334X	C CAP.	0.33µF	50V	Z
	C1413	QFLC2AJ-563Z	M CAP.	0.056µF	100V	J
	C1422	QETN1VM-108Z	E CAP.	1000µF	35V	M
	C1521	QETN1VM-476Z	E CAP.	47µF	35V	M
	C1522	QFLC1HJ-332Z	M CAP.	3300pF	50V	J
	C1523	QFLC1HJ-223Z	M CAP.	0.022µF	50V	J
	C1524	QFZ0200-612	MPP CAP.	6100pF	1.5kVH	±3%
	C1525	QFZ0200-342	MPP CAP.	3400pF	1.5kVH	±3%
	C1526	QFP32GJ-393	PP CAP.	0.039µF	400V	J
	C1527	QFZ0199-154	MPP CAP.	0.15µF	250V	J
	C1528	QFZ0197-124	MPP CAP.	0.12µF	250V	J
	C1529	QEHR2EM-475Z	E CAP.	4.7µF	250V	M
	C1530	QCB32HK-561Z	C CAP.	560pF	500V	K
	C1531	QEHR1EM-108Z	E CAP.	1000µF	25V	M
	C1533	QEHR1EM-108Z	E CAP.	1000µF	25V	M
	C1535	QCB32HK-101Z	C CAP.	100pF	500V	K
	C1536	QFLC1HJ-103Z	M CAP.	0.01µF	50V	J
	C1540	QFV71HJ-104Z	MF CAP.	0.1µF	50V	J
	C1541	QETN2EM-475Z	E CAP.	4.7µF	250V	M
	C1550	NCB31CK-104X	C CAP.	0.1µF	16V	K
	C1591	QETN1AM-107Z	E CAP.	100µF	10V	M
	C1592	QEZ0203-107	E CAP.	100µF	160V	M
	C1593	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1602	NCB31HK-103X	C CAP.	0.01µF	50V	K
	C1603	QETN1CM-107Z	E CAP.	100µF	16V	M
	C1604	NCB31CK-104X	C CAP.	0.1µF	16V	K
	C1606-07	NDC31HJ-2R0X	C CAP.	2.0pF	50V	J
	C1608-09	NCB31HK-103X	C CAP.	0.01µF	50V	K
	C1610	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1611	NCB31CK-104X	C CAP.	0.1µF	16V	K
	C1612	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1613	NCB31CK-104X	C CAP.	0.1µF	16V	K
	C1615	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1616	NCB31CK-104X	C CAP.	0.1µF	16V	K
	C1617	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1619	NCB31CK-104X	C CAP.	0.1µF	16V	K
	C1620	QETN1HM-106Z	E CAP.	10µF	50V	M

⚠	Symbol No.	Part No.	Part Name	Description			Local
	CAPACITOR						
	C1621-22	NCB31HK-102X	C CAP.	1000pF	50V	K	
	C1623-24	NCF31AZ-105X	C CAP.	1μF	10V	Z	
	C1650	QEHR1HM-106Z	E CAP.	10μF	50V	M	
	C1651	QETN1HM-107Z	E CAP.	100μF	50V	M	
	C1652	QETN1HM-106Z	E CAP.	10μF	50V	M	
	C1655-56	QETM1VM-108	E CAP.	1000μF	35V	M	
	C1659-61	NCF21HZ-224X	C CAP.	0.22μF	50V	Z	
	C1662	QETN1HM-106Z	E CAP.	10μF	50V	M	
	C1663	NCF21HZ-224X	C CAP.	0.22μF	50V	Z	
	C1665	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1666-67	QFLC1HJ-153Z	M CAP.	0.015μF	50V	J	
	C1668-69	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1670	NCB31HK-223X	C CAP.	0.022μF	50V	K	
	C1671	QETN1CM-476Z	E CAP.	47μF	16V	M	
	C1672	NCB31HK-473X	C CAP.	0.047μF	50V	K	
	C1673	QETN1CM-336Z	E CAP.	33μF	16V	M	
	C1674	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1675	NCB31HK-473X	C CAP.	0.047μF	50V	K	
	C1676	NCB31HK-223X	C CAP.	0.022μF	50V	K	
	C1681-82	QETN1CM-227Z	E CAP.	220μF	16V	M	
	C1683	QETN1CM-336Z	E CAP.	33μF	16V	M	
	C1685-86	NCF31AZ-105X	C CAP.	1μF	10V	Z	
	C1702	QETN1HM-106Z	E CAP.	10μF	50V	M	
	C1703-04	NDC31HJ-220X	C CAP.	22pF	50V	J	
	C1706	NCB21EK-224X	C CAP.	0.22μF	25V	K	
	C1707	QETN1CM-107Z	E CAP.	100μF	16V	M	
	C1709	QETN1CM-107Z	E CAP.	100μF	16V	M	
	C1710	NCB21EK-224X	C CAP.	0.22μF	25V	K	
	C1711	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1713	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1714	QETN1CM-476Z	E CAP.	47μF	16V	M	
	C1720	QETN1CM-476Z	E CAP.	47μF	16V	M	
	C1725	NCB31HK-681X	C CAP.	680pF	50V	K	
	C1726	QETN1HM-106Z	E CAP.	10μF	50V	M	
	C1730-31	NCB21EK-224X	C CAP.	0.22μF	25V	K	
	C1732	QETN1CM-107Z	E CAP.	100μF	16V	M	
	C1733	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1734-35	NCB31HK-222X	C CAP.	2200pF	50V	K	
	C1736-37	QETN1HM-105Z	E CAP.	1μF	50V	M	
	C1738	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1739	NFV41CJ-104X	MPP CAP.	0.1μF	16V	J	
	C1740	QETN1HM-225Z	E CAP.	2.2μF	50V	M	
	C1741-42	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1743	QETN1CM-107Z	E CAP.	100μF	16V	M	
	C1744	NCB21HK-102X	C CAP.	1000pF	50V	K	
	C1745-47	NCB31EK-473X	C CAP.	0.047μF	25V	K	
	C1749	QETN1HM-106Z	E CAP.	10μF	50V	M	
	C1751-53	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1760	NCB21EK-104X	C CAP.	0.1μF	25V	K	
	C1761	QETN1CM-107Z	E CAP.	100μF	16V	M	
	C1770	QETN1HM-106Z	E CAP.	10μF	50V	M	
	C1801-04	QETN1HM-106Z	E CAP.	10μF	50V	M	
	C1805	QFLC1HJ-104Z	M CAP.	0.1μF	50V	J	
	C1807-08	NCF31AZ-105X	C CAP.	1μF	10V	Z	
	C1810	NCF31AZ-105X	C CAP.	1μF	10V	Z	
	C1811	QFLC1HJ-104Z	M CAP.	0.1μF	50V	J	
	C1812	NCF31AZ-105X	C CAP.	1μF	10V	Z	
	C1813	NCB31HK-103X	C CAP.	0.01μF	50V	K	
	C1814	QFLC1HJ-104Z	M CAP.	0.1μF	50V	J	
	C1815	NCF31AZ-105X	C CAP.	1μF	10V	Z	
	C1817	NCF31AZ-105X	C CAP.	1μF	10V	Z	
	C1819	QFLC1HJ-104Z	M CAP.	0.1μF	50V	J	
	C1820-21	NCF31AZ-105X	C CAP.	1μF	10V	Z	
	C1822	QETN1CM-477Z	E CAP.	470μF	16V	M	
	C1823-24	QETN1CM-107Z	E CAP.	100μF	16V	M	
	C1825	NCB31HK-103X	C CAP.	0.01μF	50V	K	
	C1826	QFLC1HJ-104Z	M CAP.	0.1μF	50V	J	
	C1827	NCB31HK-103X	C CAP.	0.01μF	50V	K	
	C1829-31	NCB31HK-103X	C CAP.	0.01μF	50V	K	
	C1833	QETN1HM-226Z	E CAP.	22μF	50V	M	
	C1834	NDC31HJ-181X	C CAP.	180pF	50V	J	
⚠	C1901	QFZ9073-104	MF CAP.	0.1μF			

⚠	Symbol No.	Part No.	Part Name	Description			Local
	CAPACITOR						
⚠	C1902	QFZ9073-473	MF CAP.	0.047μF			
	C1903-05	QCZ9015-102Z	C CAP.	1000pF	250V	Z	
⚠	C1906	QFZ9073-224	MF CAP.	0.22μF			
	C1907	QEZ0199-227	E CAP.	220μF	400V	M	
	C1908	QCZ0364-222	C CAP.	2200pF			
	C1910	NDC21HJ-471X	C CAP.	470pF	50V	J	
	C1911	QETN1EM-227Z	E CAP.	220μF	25V	M	
	C1914	QETN1EM-227Z	E CAP.	220μF	25V	M	
	C1915	QFLC1HJ-222Z	M CAP.	2200pF	50V	J	
	C1952	QCB32HK-471Z	C CAP.	470pF	500V	K	
	C1953	QEHR1VM-108Z	E CAP.	1000μF	35V	M	
	C1954	NCB31HK-102X	C CAP.	1000pF	50V	K	
	C1957	QCB32HK-471Z	C CAP.	470pF	500V	K	
	C1958	QETN1CM-108Z	E CAP.	1000μF	16V	M	
	C1959	QCZ0364-561	C CAP.	560pF			
	C1960	QEZ0203-107	E CAP.	100μF	160V	M	
	C1962	QETN1HM-106Z	E CAP.	10μF	50V	M	
	C1963	QETN1CM-476Z	E CAP.	47μF	16V	M	
	C1964	QEHR1VM-476Z	E CAP.	47μF	35V	M	
	C1968	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1972	QETN1HM-476Z	E CAP.	47μF	50V	M	
	C1973	QETN1AM-107Z	E CAP.	100μF	10V	M	
	C1974	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1975	QETN1CM-227Z	E CAP.	220μF	16V	M	
	C1976	QETN1AM-107Z	E CAP.	100μF	10V	M	
	C1977	QETN1EM-476Z	E CAP.	47μF	25V	M	
	C1978	NCB21HK-104X	C CAP.	0.1μF	50V	K	
	C1980	QETN1CM-107Z	E CAP.	100μF	16V	M	
⚠	C1991-93	QCZ9079-102	C CAP.	1000pF	AC250V	M	
	TRANSFORMER						
	T1521	CE40203-00CJ1	DRIVE TRANSF.				
⚠	T1551	QQH0104-001	H.V.TRANSF.				
⚠	T1901	QQS0117-001	SWTICH.TRANSF.				
	COIL						
	L1001-02	QQL244K-8R2Z	COIL	8.2μH		K	
	L1101-02	QQL244J-5R6Z	COIL	5.6μH		J	
	L1103	QQL244K-100Z	COIL	10μH		K	
	L1104	QQL244K-180Z	COIL	18μH		K	
	L1351	QQL03BJ-5R6Z	COIL	5.6μH		J	
	L1523	QQR1005-004	LINEARITY COIL				
	L1524	QQLZ034-360	CHOKE COIL	36μH			
	L1601	QQL244K-4R7Z	COIL	4.7μH		K	
	L1602	QRN143J-0R0X	C R	0.0Ω	1/4W	J	
	L1701-02	QQL244K-100Z	COIL	10μH		K	
	L1731	QQL244J-5R6Z	COIL	5.6μH		J	
	L1951	QQLZ034-460	CHOKE COIL	46μH			
	L1953-54	QQL244J-5R6Z	COIL	5.6μH		J	
	DIODE						
	D1101	DAN235K-X	SI.DIODE				
	D1351	MA111-X	SI.DIODE				
	D1356	MA111-X	SI.DIODE				
	D1357	RGP10J-5025-T3	SI.DIODE				
	D1358	RGP10J-5025-T3	SI.DIODE				
	D1359	RGP10J-5025-T3	SI.DIODE				
	D1360	MA3075/M/-X	ZENER DIODE				
	D1361-64	MA111-X	SI.DIODE				
	D1401	RGP10J-5025-T3	SI.DIODE				
	D1402	MTZJ75-T2	ZENER DIODE				
	D1405	1N4003-T2	SI.DIODE				
	D1408	MA111-X	SI.DIODE				
	D1521	ERB06-15-F1	SI.DIODE				
	D1522	RU3AM-LFC4	SI.DIODE				

⚠	Symbol No.	Part No.	Part Name	Description	Local

DIODE

	D1523	RGP10J-5025-T3	SI.DIODE		
	D1541	RGP10J-5025-T3	SI.DIODE		
	D1550	MA111-X	SI.DIODE		
	D1551	RGP10J-5025-T3	SI.DIODE		
	D1553	RGP10J-5025-T3	SI.DIODE		
	D1554	RGP10J-5025-T3	SI.DIODE		
	D1592	MA3075/H/-X	ZENER DIODE		
	D1652-53	MA3330/L/-X	ZENER DIODE		
	D1682	MA111-X	SI.DIODE		
	D1702	MA3024-X	ZENER DIODE		
	D1730-33	MA111-X	SI.DIODE		
	D1760	SLR-342VR-T16	L.E.D.		
	D1770	MA111-X	SI.DIODE		
	D1771	P1241-04	C.D.S.		
	D1801-02	MA3120/M/-X	ZENER DIODE		
	D1901	GSIB460	DIODE		
	D1903	MTZJ12C-T2	ZENER DIODE		
	D1904	EG01C-T2	SI.DIODE		
	D1906	EG01C-T2	SI.DIODE		
	D1907	MA3300/M/-X	CHIP ZENER DIODE		
	D1908	MTZJ27B-T2	ZENER DIODE		
	D1909	MA111-X	SI.DIODE		
	D1910	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	D1911	RGP10J-TS-T3	SI.DIODE		
	D1912	1SS133-T2	SI.DIODE		
	D1914	ERC30-02L38	SI.DIODE		
	D1952	ERC30-02L38	SI.DIODE		
	D1954	RGP30B-F1	SI.DIODE		
	D1955	1SR35-400A-T2	SI.DIODE		
	D1956	RU3AM-LFC4	SI.DIODE		
	D1958	MTZJ5.1A-T2	ZENER DIODE		
	D1964	MA3330/L/-X	ZENER DIODE		
	D1965	1SS133-T2	SI.DIODE		
	D1966	MA3068/M/-X	ZENER DIODE		
	D1968-69	MA111-X	SI.DIODE		

TRANSISTOR

	Q1101	2SC5083/L-P/-T	SI.TRANSISTOR
	Q1102-03	DTC124EKA-X	DIGI.TRANSISTOR
	Q1104	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1105-06	DTC124EKA-X	DIGI.TRANSISTOR
	Q1107	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1108	2SC2412K/QR/-X	SI.TRANSISTOR
	Q1109	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1110	DTC124EKA-X	DIGI.TRANSISTOR
	Q1111	2SC2412K/QR/-X	SI.TRANSISTOR
	Q1150	2SC2412K/QR/-X	SI.TRANSISTOR
	Q1301-02	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1351	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1352	2SC4722/NP/	SI.TRANSISTOR
	Q1353-55	2SC2412K/QR/-X	SI.TRANSISTOR
	Q1521	2SC2655/Y/-T	SI.TRANSISTOR
	Q1522	2SD2634-YD	SI.TRANSISTOR
	Q1591	2SA1208/ST/Z1-T	SI.TRANSISTOR
	Q1592	DTC124EKA-X	DIGI.TRANSISTOR
	Q1660-61	2SC2412K/QR/-X	SI.TRANSISTOR
	Q1683-84	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1685-86	DTC323TK-X	DIGI.TRANSISTOR
	Q1687	2SC2412K/QR/-X	SI.TRANSISTOR
	Q1701-02	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1703	2SC2412K/QR/-X	SI.TRANSISTOR
	Q1720	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1770	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1801-02	DTC323TK-X	DIGI.TRANSISTOR
	Q1803	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1804	2SC1740S/QR/-T	SI.TRANSISTOR
	Q1860	2SC2412K/QR/-X	SI.TRANSISTOR
	Q1861-62	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1952-54	2SC2412K/QR/-X	SI.TRANSISTOR

⚠	Symbol No.	Part No.	Part Name	Description	Local

IC

	IC1351	TDA6107Q/N2	I.C(MONO-ANA)		
	IC1401	AN5522	I.C(MONO-ANA)		
	IC1601	MSP3415D-QG-B3X	I.C(MONO-ANA)		
	IC1650	AN5276	I.C(MONO-ANA)		
	IC1665	BA4558F-X	I.C(MONO-ANA)		
	IC1701	TDA9386N12S0555	I.C(MICRO-COMP)		
	IC1702	ATR24C08-21LS	I.C(MEMORY-OTH)	(SERVICE)	
	IC1760	GP1U281Q	IFR DETECT UNIT		
	IC1801	MM1492AF	I.C(MONO-ANA)		
	IC1901	STR-F6707A/F7	I.C(HYBRID)		
	IC1951	SE135N	I.C(HYBRID)		
	IC1972	L88M33T-X	I.C(MONO-ANA)		
	IC1974	BA51W12ST-V5	I.C(MONO-ANA)		

OTHERS

		LC30114-001C-H	L.E.D.HOLDER		
		CM35921-005-H	CDS HOLDER		
	CF1103	TPSH6.0MB	CERAMIC FILTER		
	CF1104	TPS5.5MW	CERAMIC FILTER		
	CF1105	TPS6.5MB	CERAMIC FILTER		
	CF1106	QAX0639-001Z	CERAMIC FILTER		
	CL1001	QZW0027-002	WIRE CLAMP		
	CL1002	QZW0027-001	WIRE CLAMP		
⚠	CP1951	ICP-N75-Y	I.C.PROTECT		
⚠	CP1953	ICP-N75-Y	I.C.PROTECT		
⚠	F1901	QMF51E2-4R0J4	FUSE		
	FC1901	CEMG002-001Z	FUSE CLIP		
	J1770	QNS0155-001	JACK		
	J1771	QNN0282-003	PIN JACK		
	J1772	QNN0282-002	PIN JACK		
	J1773	QNN0282-001	PIN JACK		
	J1801	QNN0349-001	PIN JACK		
	J1802	QNN0349-002	PIN JACK		
	J1803	QNN0348-001	PIN JACK		
	J1804	QNN0349-001	PIN JACK		
	K1951	QQR1214-001Y	FERRITE BEADS		
	K1954-55	QQR1214-001Y	FERRITE BEADS		
	LC1601	CE42482-103Y	EMI FILTER		
⚠	LF1901	QQR0673-004	LINE FILTER		
⚠	LF1902	QQR1035-002	LINE FILTER		
⚠	PC1901	PC123F2	I.C(PH.COUPLER)		
⚠	RY1901	QSK0061-001	RELAY		
	S1780	QSW0619-003Z	PUSH SWITCH	MENU	
	S1781	QSW0619-003Z	PUSH SWITCH	CH+	
	S1782	QSW0619-003Z	PUSH SWITCH	CH-	
	S1783	QSW0619-003Z	PUSH SWITCH	VOL+	
	S1784	QSW0619-003Z	PUSH SWITCH	VOL-	
⚠	S1901	QSW0846-001	PUSH SWITCH	POWER	
	SF1101	QAX0663-001	SAW FILTER		
	SF1102	QAX0594-001	SAW FILTER		
	SG1301-03	QAF0006-501	ARRESTER		
	SG1304	QAF0041-272	ARRESTER		
⚠	SK1351	CE42446-001	C.R.T.SOCKET		
	TH1901	QAD0134-4R5	P.THERMISTOR		
	TU1001	QAU0185-004	TUNER		
⚠	VA1901	QAF0052-621	VARISTOR		
	W1003	QQR1214-001Y	FERRITE BEADS		
	W1008	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	W1010	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	W1052	QQR1214-001Y	FERRITE BEADS		
	W1067	QQR1214-001Y	FERRITE BEADS		
	W1071	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	W1096	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	W1107	QQR1214-001Y	FERRITE BEADS		
	W1239	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	W1257	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	W1293	QQR1214-001Y	FERRITE BEADS		
	W1307	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	W1309	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	W1318	QQR1214-001Y	FERRITE BEADS		
	W1321-22	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	

⚠	Symbol No.	Part No.	Part Name	Description	Local
	W1325-26	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	W1330	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	W1333	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	W1344	QETN1HM-106Z	E CAP.	10µF 50V M	
	W1354	QETN1HM-106Z	E CAP.	10µF 50V M	
	W1375	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	W1379	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	W1388	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	W1418	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	W1420	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	W1424	QQR1214-001Y	FERRITE BEADS		
	W1430	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	X1601	CE42546-001Z	CRYSTAL		
	X1701	QAX0688-001	CRYSTAL		
	Y1004	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	Y1103	QRE141J-0R0Y	C R	0.0Ω 1/4W J	
	Y1301-02	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	Y1602	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	Y1604	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	

PRINTED WIRING BOARD PARTS LIST (AV-25L91-BK)

MAIN PW BOARD ASS'Y(SCH-1052A-BK)

RESISTOR

⚠	Symbol No.	Part No.	Part Name	Description	Local
	R1001-02	NRSA63J-221X	MG R	220Ω 1/16W	J
	R1003	NRSA63J-392X	MG R	3.9kΩ 1/16W	J
	R1004	NRSA63J-221X	MG R	220Ω 1/16W	J
	R1006	NRSA63J-273X	MG R	27kΩ 1/16W	J
	R1101	NRSA63J-100X	MG R	10Ω 1/16W	J
	R1102	NRSA63J-682X	MG R	6.8kΩ 1/16W	J
	R1103	NRSA63J-272X	MG R	2.7kΩ 1/16W	J
	R1104	NRSA63J-181X	MG R	180Ω 1/16W	J
	R1105	NRSA63J-220X	MG R	22Ω 1/16W	J
	R1106	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1107	NRSA63J-472X	MG R	4.7kΩ 1/16W	J
	R1108-10	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1111	NRSA63J-102X	MG R	1kΩ 1/16W	J
	R1112	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1113	NRSA63J-271X	MG R	270Ω 1/16W	J
	R1114	NRSA63J-821X	MG R	820Ω 1/16W	J
	R1115	NRSA63J-181X	MG R	180Ω 1/16W	J
	R1117	NRSA63J-102X	MG R	1kΩ 1/16W	J
	R1119	NRSA63J-102X	MG R	1kΩ 1/16W	J
	R1120	NRSA63J-471X	MG R	470Ω 1/16W	J
	R1150	NRSA63J-331X	MG R	330Ω 1/16W	J
	R1151	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1152	NRSA63J-121X	MG R	120Ω 1/16W	J
	R1153	NRSA63J-122X	MG R	1.2kΩ 1/16W	J
	R1154	NRSA63J-181X	MG R	180Ω 1/16W	J
	R1301-02	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1303	NRSA63J-562X	MG R	5.6kΩ 1/16W	J
	R1304-05	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1306	NRSA63J-562X	MG R	5.6kΩ 1/16W	J
	R1350-51	NRSA63J-151X	MG R	150Ω 1/16W	J
	R1353	NRSA63J-151X	MG R	150Ω 1/16W	J
	R1354	QRE121J-182Y	C R	1.8kΩ 1/2W	J
	R1361	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	R1363	QRZ0107-152Z	C R	1.5kΩ 1/2W	K
	R1364	QRE121J-182Y	C R	1.8kΩ 1/2W	J
	R1365	QRZ0107-152Z	C R	1.5kΩ 1/2W	K
	R1366	QRZ0107-474Z	C R	470kΩ 1/2W	K
	R1368	QRZ0107-152Z	C R	1.5kΩ 1/2W	K
	R1369	QRE121J-182Y	C R	1.8kΩ 1/2W	J
	R1373-74	QRE121J-124Y	C R	120kΩ 1/2W	J
	R1380-83	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1384	NRSA63J-223X	MG R	22kΩ 1/16W	J
	R1401	NRSA63J-224X	MG R	220kΩ 1/16W	J
	R1403	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	R1405	NRSA63J-682X	MG R	6.8kΩ 1/16W	J
	R1406	NRSA63J-123X	MG R	12kΩ 1/16W	J
	R1408	NRSA63J-682X	MG R	6.8kΩ 1/16W	J
	R1410	NRSA63J-123X	MG R	12kΩ 1/16W	J
	R1411	QRG01GJ-221	OM R	220Ω 1W	J
	R1412	QRE121J-1R0Y	C R	1.0Ω 1/2W	J
	R1413	QRX01GJ-2R7	MF R	2.7Ω 1W	J
	R1414	QRE121J-8R2Y	C R	8.2Ω 1/2W	J
	R1425	NRSA63J-683X	MG R	68kΩ 1/16W	J
	R1480	QRE121J-681Y	C R	680Ω 1/2W	J
	R1481	NRSA63J-223X	MG R	22kΩ 1/16W	J
	R1482	NRSA63J-562X	MG R	5.6kΩ 1/16W	J
	R1483	NRSA63J-823X	MG R	82kΩ 1/16W	J
	R1484-85	NRSA63J-562X	MG R	5.6kΩ 1/16W	J
	R1486	NRSA63J-272X	MG R	2.7kΩ 1/16W	J
	R1487	NRSA63J-333X	MG R	33kΩ 1/16W	J
	R1489	NRSA63J-122X	MG R	1.2kΩ 1/16W	J
	R1490	NRSA63J-102X	MG R	1kΩ 1/16W	J
	R1491	NRSA63J-562X	MG R	5.6kΩ 1/16W	J
	R1492	NRSA63J-822X	MG R	8.2kΩ 1/16W	J
	R1493	QRE121J-333Y	C R	33kΩ 1/2W	J
	R1494	QRL03EJ-470X	OM R	47Ω 3W	J
	R1521	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1522	NRSA63J-102X	MG R	1kΩ 1/16W	J
	R1524	QRL03EJ-820X	OM R	82Ω 3W	J
	R1526	QRL029J-271	OM R	270Ω 2W	J
	R1527	QRL03EJ-103X	OM R	10kΩ 3W	J
	R1528-29	QRX029J-R47	MF R	0.47Ω 2W	J

⚠	Symbol No.	Part No.	Part Name	Description	Local
	R1531	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
⚠	R1532	QRZ9017-4R7	F R	4.7Ω 1/4W	J
⚠	R1540	QRZ9011-4R7	F R	4.7Ω 1/2W	J
	R1541-42	QRE121J-124Y	C R	120kΩ 1/2W	J
	R1543	QRE121J-471Y	C R	470Ω 1/2W	J
	R1545	QRE121J-220Y	C R	22Ω 1/2W	J
	R1546	QRE121J-822Y	C R	8.2kΩ 1/2W	J
	R1591	QRE121J-472Y	C R	4.7kΩ 1/2W	J
	R1592	QRZ0221-3R9	UNF R	3.9Ω	
	R1593	NRSA63J-821X	MG R	820Ω 1/16W	J
	R1594	QRE121J-183Y	C R	18kΩ 1/2W	J
	R1595	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1602	NRSA63J-271X	MG R	270Ω 1/16W	J
	R1603-04	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1605	QRE141J-0R0Y	C R	0.0Ω 1/4W	J
	R1621-22	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1650	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1651	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	R1652-53	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1654	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1655	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	R1658-59	QRE121J-2R2Y	C R	2.2Ω 1/2W	J
	R1660	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1661	NRSA63J-683X	MG R	68kΩ 1/16W	J
	R1662	NRSA63J-333X	MG R	33kΩ 1/16W	J
	R1663	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1664	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1665-66	QRE141J-561Y	C R	560Ω 1/4W	J
	R1667	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1668	NRSA63J-683X	MG R	68kΩ 1/16W	J
	R1669	NRSA63J-563X	MG R	56kΩ 1/16W	J
	R1670	NRSA63J-153X	MG R	15kΩ 1/16W	J
	R1671	NRSA63J-272X	MG R	2.7kΩ 1/16W	J
	R1672	NRSA63J-563X	MG R	56kΩ 1/16W	J
	R1673-74	NRSA63J-683X	MG R	68kΩ 1/16W	J
	R1675	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1676-77	NRSA63J-472X	MG R	4.7kΩ 1/16W	J
	R1678	NRSA63J-153X	MG R	15kΩ 1/16W	J
	R1679	NRSA63J-272X	MG R	2.7kΩ 1/16W	J
	R1680	NRSA63J-683X	MG R	68kΩ 1/16W	J
	R1688	NRSA63J-273X	MG R	27kΩ 1/16W	J
	R1690	NRSA63J-104X	MG R	100kΩ 1/16W	J
	R1691	NRSA63J-682X	MG R	6.8kΩ 1/16W	J
	R1692	NRSA63J-104X	MG R	100kΩ 1/16W	J
	R1693	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1696	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1698-99	NRSA63J-104X	MG R	100kΩ 1/16W	J
	R1701	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1702-03	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1704-06	NRSA63J-102X	MG R	1kΩ 1/16W	J
	R1707-10	NRSA63J-472X	MG R	4.7kΩ 1/16W	J
	R1711-14	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1715-17	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1718-19	NRSA63J-221X	MG R	220Ω 1/16W	J
	R1720	NRSA63J-102X	MG R	1kΩ 1/16W	J
	R1721-24	NRSA63J-221X	MG R	220Ω 1/16W	J
	R1725	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1726	NRSA63J-472X	MG R	4.7kΩ 1/16W	J
	R1727	NRSA63J-104X	MG R	100kΩ 1/16W	J
	R1728	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1730	NRSA63J-223X	MG R	22kΩ 1/16W	J
	R1731	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1732	NRSA63J-393X	MG R	39kΩ 1/16W	J
	R1733	NRSA63J-273X	MG R	27kΩ 1/16W	J
	R1734	NRSA63J-391X	MG R	390Ω 1/16W	J
	R1735	NRSA63J-104X	MG R	100kΩ 1/16W	J
	R1736	NRSA63J-333X	MG R	33kΩ 1/16W	J
	R1737	NRSA63J-272X	MG R	2.7kΩ 1/16W	J
	R1738	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1739-41	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1742	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	R1743	QRE141J-102Y	C R	1kΩ 1/4W	J

⚠	Symbol No.	Part No.	Part Name	Description	Local
RESISTOR					
	R1744	NRSA63J-561X	MG R	560Ω 1/16W J	
	R1745	NRSA63J-105X	MG R	1MΩ 1/16W J	
	R1746	NRSA63J-333X	MG R	33kΩ 1/16W J	
	R1747	NRSA63J-103X	MG R	10kΩ 1/16W J	
	R1748-49	NRSA63J-225X	MG R	2.2MΩ 1/16W J	
	R1750	QRE141J-0R0Y	C R	0.0Ω 1/4W J	
	R1755-56	NRSA63J-101X	MG R	100Ω 1/16W J	
	R1757-58	NRSA63J-222X	MG R	2.2kΩ 1/16W J	
	R1760	NRSA63J-682X	MG R	6.8kΩ 1/16W J	
	R1770	QRE121J-271Y	C R	270Ω 1/2W J	
	R1771	NRSA63J-102X	MG R	1kΩ 1/16W J	
	R1772	QRE121J-271Y	C R	270Ω 1/2W J	
	R1773	NRSA63J-102X	MG R	1kΩ 1/16W J	
	R1775	NRSA63J-332X	MG R	3.3kΩ 1/16W J	
	R1776	NRSA63J-392X	MG R	3.9kΩ 1/16W J	
	R1777	NRSA63J-682X	MG R	6.8kΩ 1/16W J	
	R1779	NRSA63J-272X	MG R	2.7kΩ 1/16W J	
	R1780	NRSA63J-471X	MG R	470Ω 1/16W J	
	R1781	NRSA63J-122X	MG R	1.2kΩ 1/16W J	
	R1782	NRSA63J-181X	MG R	180Ω 1/16W J	
	R1783	NRSA63J-221X	MG R	220Ω 1/16W J	
	R1784	NRSA63J-331X	MG R	330Ω 1/16W J	
	R1785	NRSA63J-471X	MG R	470Ω 1/16W J	
	R1803	NRSA63J-333X	MG R	33kΩ 1/16W J	
	R1804-05	NRSA63J-750X	MG R	75Ω 1/16W J	
	R1808	NRSA63J-823X	MG R	82kΩ 1/16W J	
	R1809	NRSA63J-391X	MG R	390Ω 1/16W J	
	R1810	NRSA63J-823X	MG R	82kΩ 1/16W J	
	R1811	NRSA63J-391X	MG R	390Ω 1/16W J	
	R1812	NRSA63J-104X	MG R	100kΩ 1/16W J	
	R1813	NRSA63J-222X	MG R	2.2kΩ 1/16W J	
	R1815	NRSA63J-101X	MG R	100Ω 1/16W J	
	R1818	NRSA63J-222X	MG R	2.2kΩ 1/16W J	
	R1820	NRSA63J-101X	MG R	100Ω 1/16W J	
	R1821	NRSA63J-222X	MG R	2.2kΩ 1/16W J	
	R1823	NRSA63J-101X	MG R	100Ω 1/16W J	
	R1824	NRSA63J-222X	MG R	2.2kΩ 1/16W J	
	R1826	NRSA63J-101X	MG R	100Ω 1/16W J	
	R1829	NRSA63J-750X	MG R	75Ω 1/16W J	
	R1830-31	NRSA63J-222X	MG R	2.2kΩ 1/16W J	
	R1832	NRSA63J-122X	MG R	1.2kΩ 1/16W J	
	R1833	NRSA63J-102X	MG R	1kΩ 1/16W J	
	R1834-35	NRSA63J-562X	MG R	5.6kΩ 1/16W J	
	R1836	NRSA63J-750X	MG R	75Ω 1/16W J	
	R1837	NRSA63J-101X	MG R	100Ω 1/16W J	
	R1838	QRK126J-121X	C R	120Ω 1/2W J	
	R1839-40	QRE121J-221Y	C R	220Ω 1/2W J	
	R1841-42	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	R1843	NRSA63J-821X	MG R	820Ω 1/16W J	
	R1844	NRSA63J-222X	MG R	2.2kΩ 1/16W J	
	R1845	NRSA63J-102X	MG R	1kΩ 1/16W J	
	R1846	NRSA63J-222X	MG R	2.2kΩ 1/16W J	
	R1847	NRSA63J-103X	MG R	10kΩ 1/16W J	
	R1848	NRSA63J-471X	MG R	470Ω 1/16W J	
	R1849	NRSA63J-221X	MG R	220Ω 1/16W J	
	R1880	NRSA63J-202X	MG R	2kΩ 1/16W J	
	R1881	NRSA63J-103X	MG R	10kΩ 1/16W J	
	R1882	NRSA63J-471X	MG R	470Ω 1/16W J	
	R1883	NRSA63J-181X	MG R	180Ω 1/16W J	
	R1884-85	QRE141J-750Y	C R	75Ω 1/4W J	
	R1902	QRF154K-2R2	UNF R	2.2Ω K	
	R1904	QRE121J-681Y	C R	680Ω 1/2W J	
	R1905	QRM034J-R15	MP R	0.15Ω 3W J	
	R1907	NRSA63J-563X	MG R	56kΩ 1/16W J	
	R1908	QRL039J-333	OM R	33kΩ 3W J	
	R1909	QRE121J-474Y	C R	470kΩ 1/2W J	
	R1910	QRE121J-472Y	C R	4.7kΩ 1/2W J	
	R1911	QRE121J-332Y	C R	3.3kΩ 1/2W J	
	R1912	NRSA63J-152X	MG R	1.5kΩ 1/16W J	
⚠	R1915	QRZ0111-474	C R	470kΩ 1/2W K	
	R1952	NRSA63J-332X	MG R	3.3kΩ 1/16W J	
	R1953	NRSA63J-101X	MG R	100Ω 1/16W J	

⚠	Symbol No.	Part No.	Part Name	Description	Local
RESISTOR					
	R1954	QRE121J-560Y	C R	56Ω 1/2W J	
	R1955	QRG01GJ-330	OM R	33Ω 1W J	
	R1956	QRE121J-100Y	MF R	10Ω 1/2W J	
	R1957	QRE121J-6R8Y	C R	6.8Ω 1/2W J	
	R1960	NRSA63J-391X	MG R	390Ω 1/16W J	
	R1961	QRL02EJ-223X	OM R	22kΩ 2W J	
	R1962	NRSA63J-561X	MG R	560Ω 1/16W J	
	R1963	QRE121J-103Y	C R	10kΩ 1/2W J	
	R1964	NRSA63J-473X	MG R	47kΩ 1/16W J	
	R1965	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	R1966	NRSA63J-682X	MG R	6.8kΩ 1/16W J	
	R1967	NRSA63J-473X	MG R	47kΩ 1/16W J	
	R1970	NRSA63J-153X	MG R	15kΩ 1/16W J	
	R1971	NRSA63J-183X	MG R	18kΩ 1/16W J	
⚠	R1991	QRZ0057-825	C R	8.2MΩ 1W J	
CAPACITOR					
	C1001	NCB31HK-103X	C CAP.	0.01µF 50V K	
	C1002	QETN1HM-106Z	E CAP.	10µF 50V M	
	C1003	QFV71HJ-104Z	MF CAP.	0.1µF 50V J	
	C1004	QETN1CM-477Z	E CAP.	470µF 16V M	
	C1005	NCB31HK-222X	C CAP.	2200pF 50V K	
	C1006	QETN1CM-336Z	E CAP.	33µF 16V M	
	C1007	NCB31HK-103X	C CAP.	0.01µF 50V K	
	C1101-05	NCB31HK-472X	C CAP.	4700pF 50V K	
	C1106-07	NCB31HK-103X	C CAP.	0.01µF 50V K	
	C1108	NCB31HK-472X	C CAP.	4700pF 50V K	
	C1109	QETN1HM-106Z	E CAP.	10µF 50V M	
	C1150-51	NCB31HK-472X	C CAP.	4700pF 50V K	
	C1308	NCB31HK-103X	C CAP.	0.01µF 50V K	
	C1352	QFK62EK-104Z	MM CAP.	0.1µF 250V K	
	C1353	QETN2EM-105Z	E CAP.	1µF 250V M	
	C1354	QCZ0131-222	C CAP.	2200pF 2000V K	
	C1355	QCZ0131-472	C CAP.	4700pF 2000V K	
	C1356	QETN1CM-108Z	E CAP.	1000µF 16V M	
	C1357	NDC31HJ-101X	C CAP.	100pF 50V J	
	C1358	QETN1CM-477Z	E CAP.	470µF 16V M	
	C1401	QETN1HM-105Z	E CAP.	1µF 50V M	
	C1402	QCB31HK-682Z	C CAP.	6800pF 50V K	
	C1403	QEHR1VM-227Z	E CAP.	220µF 35V M	
	C1406	QFLC2AJ-683Z	M CAP.	0.068µF 100V J	
	C1408	QFV71HJ-184Z	MF CAP.	0.18µF 50V J	
	C1411-12	NCF21HZ-334X	C CAP.	0.33µF 50V Z	
	C1413	QFLC2AJ-563Z	M CAP.	0.056µF 100V J	
	C1422	QETN1VM-108Z	E CAP.	1000µF 35V M	
	C1480	QETN1HM-106Z	E CAP.	10µF 50V M	
	C1483	QEZ0195-475Z	E CAP.	4.7µF 50V M	
	C1485	QETN1HM-226Z	E CAP.	22µF 50V M	
	C1521	QETN1VM-476Z	E CAP.	47µF 35V M	
	C1522	QFLC1HJ-332Z	M CAP.	3300pF 50V J	
	C1523	QFLC1HJ-223Z	M CAP.	0.022µF 50V J	
	C1524	QFZ0196-472	MPP CAP.	4700pF 1.5kVH ±3%	
	C1525	QFZ0200-113	MPP CAP.	0.011µF 1.5kVH ±3%	
	C1526	QFP32GJ-223	PP CAP.	0.022µF 400V J	
	C1527-28	QFZ0199-184	MPP CAP.	0.18µF 250V Z	
	C1529	QENC2AM-225Z	E CAP.	2.2µF 100V M	
	C1530	QCB32HK-561Z	C CAP.	560pF 500V K	
	C1531	QEHR1EM-108Z	E CAP.	1000µF 25V M	
	C1533	QEHR1EM-108Z	E CAP.	1000µF 25V M	
	C1535	QCB32HK-101Z	C CAP.	100pF 500V K	
	C1536	QFLC1HJ-103Z	M CAP.	0.01µF 50V J	
	C1540	QFV71HJ-104Z	MF CAP.	0.1µF 50V J	
	C1541	QETN2EM-106Z	E CAP.	10µF 250V M	
	C1550	NCB31CK-104X	C CAP.	0.1µF 16V K	
	C1591	QETN1AM-107Z	E CAP.	100µF 10V M	
	C1592	QETM2CM-227	E CAP.	220µF 160V M	
	C1593	QETN1EM-476Z	E CAP.	47µF 25V M	
	C1602	NCB31HK-103X	C CAP.	0.01µF 50V K	
	C1603	QETN1CM-107Z	E CAP.	100µF 16V M	
	C1604	NCB31CK-104X	C CAP.	0.1µF 16V K	

⚠	Symbol No.	Part No.	Part Name	Description		Local
	CAPACITOR					
	C1606-07	NDC31HJ-2R0X	C CAP.	2.0pF	50V	J
	C1608-09	NCB31HK-103X	C CAP.	0.01µF	50V	K
	C1610	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1611	NCB31CK-104X	C CAP.	0.1µF	16V	K
	C1612	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1613	NCB31CK-104X	C CAP.	0.1µF	16V	K
	C1615	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1616	NCB31CK-104X	C CAP.	0.1µF	16V	K
	C1617	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1619	NCB31CK-104X	C CAP.	0.1µF	16V	K
	C1620	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1621-22	NCB31HK-102X	C CAP.	1000pF	50V	K
	C1623-24	NCF31AZ-105X	C CAP.	1µF	10V	Z
	C1650	QEHR1HM-106Z	E CAP.	10µF	50V	M
	C1651	QETN1HM-107Z	E CAP.	100µF	50V	M
	C1652	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1655-56	QETM1VM-108	E CAP.	1000µF	35V	M
	C1659-61	NCF21HZ-224X	C CAP.	0.22µF	50V	Z
	C1662	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1663	NCF21HZ-224X	C CAP.	0.22µF	50V	Z
	C1665	NCB31CK-104X	C CAP.	0.1µF	16V	K
	C1666-67	QFLC1HJ-153Z	M CAP.	0.015µF	50V	J
	C1668-69	NCB31CK-104X	C CAP.	0.1µF	16V	K
	C1670	NCB31HK-223X	C CAP.	0.022µF	50V	K
	C1671	QETN1CM-476Z	E CAP.	47µF	16V	M
	C1672	NCB31HK-473X	C CAP.	0.047µF	50V	K
	C1673	QETN1CM-336Z	E CAP.	33µF	16V	M
	C1674	NCB31CK-104X	C CAP.	0.1µF	16V	K
	C1675	NCB31HK-473X	C CAP.	0.047µF	50V	K
	C1676	NCB31HK-223X	C CAP.	0.022µF	50V	K
	C1681-82	QETN1CM-227Z	E CAP.	220µF	16V	M
	C1683	QETN1CM-336Z	E CAP.	33µF	16V	M
	C1685-86	NCF31AZ-105X	C CAP.	1µF	10V	Z
	C1702	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1703-04	NDC31HJ-220X	C CAP.	22pF	50V	J
	C1706	NCB21EK-224X	C CAP.	0.22µF	25V	K
	C1707	QETN1CM-107Z	E CAP.	100µF	16V	M
	C1709	QETN1CM-107Z	E CAP.	100µF	16V	M
	C1710	NCB21EK-224X	C CAP.	0.22µF	25V	K
	C1711	NCB31CK-104X	C CAP.	0.1µF	16V	K
	C1713	NCB31CK-104X	C CAP.	0.1µF	16V	K
	C1714	QETN1CM-476Z	E CAP.	47µF	16V	M
	C1720	QETN1CM-476Z	E CAP.	47µF	16V	M
	C1725	NCB31HK-681X	C CAP.	680pF	50V	K
	C1726	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1730-31	NCB21EK-224X	C CAP.	0.22µF	25V	K
	C1732	QETN1CM-107Z	E CAP.	100µF	16V	M
	C1733	NCB31CK-104X	C CAP.	0.1µF	16V	K
	C1734-35	NCB31HK-222X	C CAP.	2200pF	50V	K
	C1736-37	QETN1HM-105Z	E CAP.	1µF	50V	M
	C1738	NCB31CK-104X	C CAP.	0.1µF	16V	K
	C1739	NFV41CJ-104X	MPP CAP.	0.1µF	16V	J
	C1740	QETN1HM-225Z	E CAP.	2.2µF	50V	M
	C1741-42	NCB31CK-104X	C CAP.	0.1µF	16V	K
	C1743	QETN1CM-107Z	E CAP.	100µF	16V	M
	C1744	NCB21HK-102X	C CAP.	1000pF	50V	K
	C1745-47	NCB31EK-473X	C CAP.	0.047µF	25V	K
	C1749	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1751-53	NCB31CK-104X	C CAP.	0.1µF	16V	K
	C1760	NCB21EK-104X	C CAP.	0.1µF	25V	K
	C1761	QETN1CM-107Z	E CAP.	100µF	16V	M
	C1770	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1801-04	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1805	QFLC1HJ-104Z	M CAP.	0.1µF	50V	J
	C1807-08	NCF31AZ-105X	C CAP.	1µF	10V	Z
	C1810	NCF31AZ-105X	C CAP.	1µF	10V	Z
	C1811	QFLC1HJ-104Z	M CAP.	0.1µF	50V	J
	C1813	NCB31HK-103X	C CAP.	0.01µF	50V	K
	C1814	QFLC1HJ-104Z	M CAP.	0.1µF	50V	J
	C1815	NCF31AZ-105X	C CAP.	1µF	10V	Z
	C1817	NCF31AZ-105X	C CAP.	1µF	10V	Z
	C1819	QFLC1HJ-104Z	M CAP.	0.1µF	50V	J

⚠	Symbol No.	Part No.	Part Name	Description		Local
	CAPACITOR					
	C1820-21	NCF31AZ-105X	C CAP.	1µF	10V	Z
	C1822	QETN1CM-477Z	E CAP.	470µF	16V	M
	C1823-24	QETN1CM-107Z	E CAP.	100µF	16V	M
	C1825	NCB31HK-103X	C CAP.	0.01µF	50V	K
	C1826	QFLC1HJ-104Z	M CAP.	0.1µF	50V	J
	C1827	NCB31HK-103X	C CAP.	0.01µF	50V	K
	C1829-31	NCB31HK-103X	C CAP.	0.01µF	50V	K
	C1833	QETN1HM-226Z	E CAP.	22µF	50V	M
	C1834	NDC31HJ-181X	C CAP.	180pF	50V	J
⚠	C1901	QFZ9073-104	MF CAP.	0.1µF		
⚠	C1902	QFZ9073-473	MF CAP.	0.01µF		
	C1903-05	QCZ9015-102Z	C CAP.	1000pF	250V	Z
⚠	C1906	QFZ9073-224	MF CAP.	0.22µF		
	C1907	QEZ0199-227	E CAP.	220µF	400V	M
	C1908	QCZ0364-222	C CAP.	2200pF		
	C1910	NDC21HJ-471X	C CAP.	470pF	50V	J
	C1911	QETN1EM-227Z	E CAP.	220µF	25V	M
	C1914	QETN1EM-227Z	E CAP.	220µF	25V	M
	C1915	QFLC1HJ-152Z	M CAP.	1500pF	50V	J
	C1952	QCB32HK-471Z	C CAP.	470pF	500V	K
	C1953	QEHR1VM-108Z	E CAP.	1000µF	35V	M
	C1954	NCB31HK-102X	C CAP.	1000pF	50V	K
	C1955	QCB32HK-471Z	C CAP.	470pF	500V	K
	C1956	QETN1VM-227Z	E CAP.	220µF	35V	M
	C1957	QCB32HK-471Z	C CAP.	470pF	500V	K
	C1958	QETN1CM-108Z	E CAP.	1000µF	16V	M
	C1959	QCZ0364-561	C CAP.	560pF		
	C1960	QEZ0203-227	E CAP.	220µF	160V	M
	C1962	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1963	QETN1CM-476Z	E CAP.	47µF	16V	M
	C1964	QEHR1VM-476Z	E CAP.	47µF	35V	M
	C1968	NCB31CK-104X	C CAP.	0.1µF	16V	K
	C1972	QETN1HM-476Z	E CAP.	47µF	50V	M
	C1973	QETN1AM-107Z	E CAP.	100µF	10V	M
	C1974	NCB31CK-104X	C CAP.	0.1µF	16V	K
	C1975	QETN1CM-227Z	E CAP.	220µF	16V	M
	C1976	QETN1AM-107Z	E CAP.	100µF	10V	M
	C1977	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1978	NCB21HK-104X	C CAP.	0.1µF	50V	K
	C1980	QETN1CM-107Z	E CAP.	100µF	16V	M
⚠	C1991-93	QCZ9079-102	C CAP.	1000pF	AC250V	M

TRANSFORMER

⚠				
	T1521	QQR1229-001	DRIVE TRANSF.	
⚠	T1551	QQH0097-001	FLYBACK TRANSF.	
⚠	T1901	QQS0116-001	SWITCH.TRANSF.	

COIL

L1001-02	QQL244K-8R2Z	COIL	8.2µH		K
L1101-02	QQL244J-5R6Z	COIL	5.6µH		J
L1103	QQL244K-100Z	COIL	10µH		K
L1104	QQL244K-180Z	COIL	18µH		K
L1351	QQL03BJ-5R6Z	COIL	5.6µH		J
L1480	QQR1138-001	CHOKE COIL			
L1523	QQR1137-005	LINEARITY COIL			
L1524	QQLZ026-140	HEATER CHOKE	14µH		
L1601	QQL244K-4R7Z	COIL	4.7µH		K
L1602	QRN143J-0R0X	C R	0.0Ω	1/4W	J
L1701-02	QQL244K-100Z	COIL	10µH		K
L1731	QQL244J-5R6Z	COIL	5.6µH		J
L1951	QQLZ034-460	CHOKE COIL	46µH		
L1953-54	QQL244J-5R6Z	COIL	5.6µH		J

⚠	Symbol No.	Part No.	Part Name	Description	Local

DIODE

	D1101	DAN235K-X	SI.DIODE	
	D1351	MA111-X	SI.DIODE	
	D1356	MA111-X	SI.DIODE	
	D1357	RGP10J-5025-T3	SI.DIODE	
	D1358	RGP10J-5025-T3	SI.DIODE	
	D1359	RGP10J-5025-T3	SI.DIODE	
	D1360	MA3075/M/-X	ZENER DIODE	
	D1361-64	MA111-X	SI.DIODE	
	D1401	RGP10J-5025-T3	SI.DIODE	
	D1402	MTZJ75-T2	ZENER DIODE	
	D1405	1N4003-T2	SI.DIODE	
	D1408	MA111-X	SI.DIODE	
	D1480	MTZJ4.3A-T2	ZENER DIODE	
	D1521	RH3G-F1	SI.DIODE	
	D1522	31DF6N-FC5	DIODE	
	D1523	RGP10J-5025-T3	SI.DIODE	
	D1541	RGP10J-5025-T3	SI.DIODE	
	D1550	MA111-X	SI.DIODE	
	D1551	RGP10J-5025-T3	SI.DIODE	
	D1553	RGP10J-5025-T3	SI.DIODE	
	D1554	RGP10J-5025-T3	SI.DIODE	
	D1592	MA3075/H/-X	ZENER DIODE	
	D1652-53	MA3330/L/-X	ZENER DIODE	
	D1682	MA111-X	SI.DIODE	
	D1702	MA3024-X	ZENER DIODE	
	D1730-33	MA111-X	SI.DIODE	
	D1760	SLR-342VR-T16	L.E.D.	
	D1770	MA111-X	SI.DIODE	
	D1771	P1241-04	C.D.S.	
	D1801-02	MA3120/M/-X	ZENER DIODE	
	D1901	GSIB460	DIODE	
	D1903	MTZJ12C-T2	ZENER DIODE	
	D1904	EG01C-T2	SI.DIODE	
	D1906	EG01C-T2	SI.DIODE	
	D1907	MA3150/M/-X	ZENER DIODE	
	D1908	MTZJ27B-T2	ZENER DIODE	
	D1909	MA111-X	SI.DIODE	
	D1910	NRSA63J-0R0X	MG R	0.0Ω 1/16W J
	D1911	RGP10J-TS-T3	SI.DIODE	
	D1912	1SS133-T2	SI.DIODE	
	D1914	ERC30-02L38	SI.DIODE	
	D1952	ERC30-02L38	SI.DIODE	
	D1953	RGP10J-5025-T3	SI.DIODE	
	D1954	RGP30B-F1	SI.DIODE	
	D1955	1SR35-400A-T2	SI.DIODE	
	D1956	31DF6N-FC5	DIODE	
	D1958	MTZJ5.1A-T2	ZENER DIODE	
	D1964	MA3330/L/-X	ZENER DIODE	
	D1965	1SS133-T2	SI.DIODE	
	D1966	MA3068/M/-X	ZENER DIODE	
	D1968-69	MA111-X	SI.DIODE	

TRANSISTOR

	Q1101	2SC5083/L-P/-T	SI.TRANSISTOR
	Q1102-03	DTC124EKA-X	DIGI.TRANSISTOR
	Q1104	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1105-06	DTC124EKA-X	DIGI.TRANSISTOR
	Q1107	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1108	2SC2412K/QR/-X	SI.TRANSISTOR
	Q1109	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1110	DTC124EKA-X	DIGI.TRANSISTOR
	Q1111	2SC2412K/QR/-X	SI.TRANSISTOR
	Q1150	2SC2412K/QR/-X	SI.TRANSISTOR
	Q1301-02	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1351	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1353-55	2SC2412K/QR/-X	SI.TRANSISTOR
	Q1480	2SD1408/OY/-LB	SI.TRANSISTOR
	Q1521	2SC2655/Y/-T	SI.TRANSISTOR
	Q1522	2SD2634-YD	SI.TRANSISTOR

⚠	Symbol No.	Part No.	Part Name	Description	Local

TRANSISTOR

	Q1591	2SA1208/ST/Z1-T	SI.TRANSISTOR	
	Q1592	DTC124EKA-X	DIGI.TRANSISTOR	
	Q1660-61	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q1683-84	2SA1037AK/QR/-X	SI.TRANSISTOR	
	Q1685-86	DTC323TK-X	DIGI.TRANSISTOR	
	Q1687	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q1701-02	2SA1037AK/QR/-X	SI.TRANSISTOR	
	Q1703	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q1720	2SA1037AK/QR/-X	SI.TRANSISTOR	
	Q1770	2SA1037AK/QR/-X	SI.TRANSISTOR	
	Q1801-02	DTC323TK-X	DIGI.TRANSISTOR	
	Q1803	2SA1037AK/QR/-X	SI.TRANSISTOR	
	Q1804	2SC1740S/QR/-T	SI.TRANSISTOR	
	Q1860	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q1861-62	2SA1037AK/QR/-X	SI.TRANSISTOR	
	Q1952-54	2SC2412K/QR/-X	SI.TRANSISTOR	

IC

	IC1351	TDA6107Q/N2	I.C(MONO-ANA)	
	IC1401	AN5522	I.C(MONO-ANA)	
	IC1480	UPC358G2-XE	I.C(MONO-ANA)	
	IC1601	MSP3415D-QG-B3X	I.C(MONO-ANA)	
	IC1650	AN5276	I.C(MONO-ANA)	
	IC1665	BA4558F-X	I.C(MONO-ANA)	
	IC1701	TDA9386N12S0555	I.C(MICRO-COMP)	
	IC1702	AT24C08-25LS	I.C(MEMORY-OTH)	(SERVICE)
	IC1760	GP1U281Q	IFR DETECT UNIT	
	IC1801	MM1492AF	I.C(MONO-ANA)	
	IC1901	STR-F6709A/F7	I.C(HYBRID)	
	IC1951	SE135N	I.C(HYBRID)	
	IC1972	L88M33T-X	I.C(MONO-ANA)	
	IC1974	BA51W12ST-V5	I.C(MONO-ANA)	

OTHERS

		LC30114-001C-H	L.E.D.HOLDER	
		CM35921-005-H	CDS HOLDER	
	CF1103	TPSH6.0MB	CERAMIC FILTER	
	CF1104	TPS5.5MW	CERAMIC FILTER	
	CF1105	TPS6.5MB	CERAMIC FILTER	
	CF1106	QAX0639-001Z	CERAMIC FILTER	
	CL1001	QZW0027-002	WIRE CLAMP	
	CL1002	QZW0028-002	WIRE CLAMP	
⚠	CP1951	ICP-N75-Y	I.C.PROTECT	
⚠	CP1952	ICP-N50-Y	I.C.PROTECT	
⚠	CP1953	ICP-N75-Y	I.C.PROTECT	
⚠	F1901	QMF51E2-4R0J4	FUSE	
	FC1901	CEMG002-001Z	FUSE CLIP	
	J1770	QNS0155-001	JACK	
	J1771	QNN0282-003	PIN JACK	
	J1772	QNN0282-002	PIN JACK	
	J1773	QNN0282-001	PIN JACK	
	J1801	QNN0349-001	PIN JACK	
	J1802	QNN0349-002	PIN JACK	
	J1803	QNN0348-001	PIN JACK	
	J1804	QNN0349-001	PIN JACK	
	K1902	CE41433-001Z	BEADS CORE	
	K1951	QQR1214-001Y	FERRITE BEADS	
	K1953-55	QQR1214-001Y	FERRITE BEADS	
	LC1601	CE42482-103Y	EMI FILTER	
⚠	LF1901	QQR0673-004	LINE FILTER	
⚠	LF1902	QQR1035-002	LINE FILTER	
⚠	PC1901	PC123F2	I.C(PH.COUPLER)	
⚠	RY1901	QSK0061-001	RELAY	
	S1780	QSW0619-003Z	PUSH SWITCH	MENU
	S1781	QSW0619-003Z	PUSH SWITCH	CH+
	S1782	QSW0619-003Z	PUSH SWITCH	CH-
	S1783	QSW0619-003Z	PUSH SWITCH	VOL+
	S1784	QSW0619-003Z	PUSH SWITCH	VOL-

⚠	Symbol No.	Part No.	Part Name	Description	Local
	OTHERS				
⚠	S1901	QSW0846-001	PUSH SWITCH	POWER	
	SF1101	QAX0663-001	SAW FILTER		
	SF1102	QAX0594-001	SAW FILTER		
	SG1301-03	QAF0006-501	ARRESTER		
	SG1304	QAF0041-272	ARRESTER		
⚠	SK1351	CE42446-001	C.R.T.SOCKET		
	TH1901	QAD0134-4R5	P.THERMISTOR		
	TU1001	QAU0185-004	TUNER		
⚠	VA1901	QAF0052-621	VARISTOR		
	W1003	QQR1214-001Y	FERRITE BEADS		
	W1008	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	W1010	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	W1052	QQR1214-001Y	FERRITE BEADS		
	W1071	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	W1096	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	W1107	QQR1214-001Y	FERRITE BEADS		
	W1239	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	W1257	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	W1293	QQR1214-001Y	FERRITE BEADS		
	W1298	QQR1214-001Y	FERRITE BEADS		
	W1307	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	W1309	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	W1321-22	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	W1325-26	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	W1330	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	W1333	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	W1344	QETN1HM-106Z	E CAP.	10µF 50V	M
	W1354	QETN1HM-106Z	E CAP.	10µF 50V	M
	W1375	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	W1379	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	W1388	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	W1418	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	W1420	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	W1424	QQR1214-001Y	FERRITE BEADS		
	W1430	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	X1601	CE42546-001Z	CRYSTAL		
	X1701	QAX0688-001	CRYSTAL		
	Y1004	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	Y1103	QRE141J-0R0Y	C R	0.0Ω 1/4W	J
	Y1301-02	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	Y1602	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	Y1604	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J

PRINTED WIRING BOARD PARTS LIST (AV-29L91-BK)

MAIN PW BOARD ASS'Y(SCH-1053A-BK)

RESISTOR

⚠	Symbol No.	Part No.	Part Name	Description			Local
	R1001-02	NRSA63J-221X	MG R	220Ω	1/16W	J	
	R1003	NRSA63J-392X	MG R	3.9kΩ	1/16W	J	
	R1004	NRSA63J-221X	MG R	220Ω	1/16W	J	
	R1006	NRSA63J-273X	MG R	27kΩ	1/16W	J	
	R1101	NRSA63J-100X	MG R	10Ω	1/16W	J	
	R1102	NRSA63J-682X	MG R	6.8kΩ	1/16W	J	
	R1103	NRSA63J-272X	MG R	2.7kΩ	1/16W	J	
	R1104	NRSA63J-181X	MG R	180Ω	1/16W	J	
	R1105	NRSA63J-220X	MG R	22Ω	1/16W	J	
	R1106	NRSA63J-101X	MG R	100Ω	1/16W	J	
	R1107	NRSA63J-472X	MG R	4.7kΩ	1/16W	J	
	R1108-10	NRSA63J-222X	MG R	2.2kΩ	1/16W	J	
	R1111	NRSA63J-102X	MG R	1kΩ	1/16W	J	
	R1112	NRSA63J-103X	MG R	10kΩ	1/16W	J	
	R1113	NRSA63J-271X	MG R	270Ω	1/16W	J	
	R1114	NRSA63J-821X	MG R	820Ω	1/16W	J	
	R1115	NRSA63J-181X	MG R	180Ω	1/16W	J	
	R1117	NRSA63J-102X	MG R	1kΩ	1/16W	J	
	R1119	NRSA63J-102X	MG R	1kΩ	1/16W	J	
	R1120	NRSA63J-471X	MG R	470Ω	1/16W	J	
	R1150	NRSA63J-331X	MG R	330Ω	1/16W	J	
	R1151	NRSA63J-222X	MG R	2.2kΩ	1/16W	J	
	R1152	NRSA63J-121X	MG R	120Ω	1/16W	J	
	R1153	NRSA63J-122X	MG R	1.2kΩ	1/16W	J	
	R1154	NRSA63J-181X	MG R	180Ω	1/16W	J	
	R1301-02	NRSA63J-222X	MG R	2.2kΩ	1/16W	J	
	R1303	NRSA63J-562X	MG R	5.6kΩ	1/16W	J	
	R1304-05	NRSA63J-222X	MG R	2.2kΩ	1/16W	J	
	R1306	NRSA63J-562X	MG R	5.6kΩ	1/16W	J	
	R1307	NRSA63J-103X	MG R	10kΩ	1/16W	J	
	R1308	NRSA63J-101X	MG R	100Ω	1/16W	J	
	R1309	NRSA63J-104X	MG R	100kΩ	1/16W	J	
	R1310	NRSA63J-473X	MG R	47kΩ	1/16W	J	
	R1311	NRSA63J-123X	MG R	12kΩ	1/16W	J	
	R1401	NRSA63J-224X	MG R	220kΩ	1/16W	J	
	R1403	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J	
	R1405	NRSA63J-682X	MG R	6.8kΩ	1/16W	J	
	R1406	NRSA63J-472X	MG R	4.7kΩ	1/16W	J	
	R1408	NRSA63J-682X	MG R	6.8kΩ	1/16W	J	
	R1410	NRSA63J-472X	MG R	4.7kΩ	1/16W	J	
	R1411	QRG01GJ-221	OM R	220Ω	1W	J	
	R1412	QRE121J-1R0Y	C R	1.0Ω	1/2W	J	
	R1413	QRX01GJ-1R2	MF R	1.2Ω	1W	J	
	R1414	QRE121J-2R7Y	C R	2.7Ω	1/2W	J	
	R1425	NRSA63J-683X	MG R	68kΩ	1/16W	J	
	R1478-79	NRSA63J-101X	MG R	100Ω	1/16W	J	
	R1480	QRE121J-681Y	C R	680Ω	1/2W	J	
	R1481	NRSA63J-223X	MG R	22kΩ	1/16W	J	
	R1482	NRSA63J-562X	MG R	5.6kΩ	1/16W	J	
	R1483	NRSA63J-823X	MG R	82kΩ	1/16W	J	
	R1484	NRSA63J-562X	MG R	5.6kΩ	1/16W	J	
	R1485	NRSA63J-123X	MG R	12kΩ	1/16W	J	
	R1486	NRSA63J-272X	MG R	2.7kΩ	1/16W	J	
	R1487	NRSA63J-333X	MG R	33kΩ	1/16W	J	
	R1489	NRSA63J-122X	MG R	1.2kΩ	1/16W	J	
	R1490	NRSA63J-102X	MG R	1kΩ	1/16W	J	
	R1491	NRSA63J-562X	MG R	5.6kΩ	1/16W	J	
	R1492	NRSA63J-822X	MG R	8.2kΩ	1/16W	J	
	R1493	QRE121J-223Y	C R	22kΩ	1/2W	J	
	R1494	QRL039J-330	OM R	33Ω	3W	J	
	R1521	NRSA63J-101X	MG R	100Ω	1/16W	J	
	R1522	NRSA63J-102X	MG R	1kΩ	1/16W	J	
	R1523-24	QRL039J-151	OM R	150Ω	3W	J	
	R1526	QRL029J-271	OM R	270Ω	2W	J	
	R1527	QRL039J-103	OM R	10kΩ	3W	J	
	R1528-29	QRX029J-3R3	MF R	3.3Ω	2W	J	
	R1531	NRSA63J-182X	MG R	1.8kΩ	1/16W	J	
⚠	R1532	QRZ9017-4R7	F R	4.7Ω	1/4W	J	
	R1541-42	QRE121J-124Y	C R	120kΩ	1/2W	J	
	R1543	QRE121J-471Y	C R	470Ω	1/2W	J	
	R1545	QRE121J-220Y	C R	22Ω	1/2W	J	
	R1546	QRE121J-822Y	C R	8.2kΩ	1/2W	J	

RESISTOR

⚠	Symbol No.	Part No.	Part Name	Description			Local
	R1547	QRG01GJ-121	OM R	120Ω	1W	J	
	R1561	QRL029J-220	OM R	22Ω	2W	J	
	R1562	QRE121J-123Y	C R	12kΩ	1/2W	J	
	R1563	QRZ0056-103Z	COMP.R	10kΩ	1/2W	K	
	R1591	QRA14CF-1202Y	MF R	12kΩ	1/4W	F	
	R1592	QRZ0221-2R2	UNF R	2.2Ω			
	R1593	NRSA02F-332X	MG R	3.3kΩ	1/10W	F	
	R1594	QRE121J-183Y	C R	18kΩ	1/2W	J	
	R1595	NRSA63J-222X	MG R	2.2kΩ	1/16W	J	
	R1602	NRSA63J-271X	MG R	270Ω	1/16W	J	
	R1603-04	NRSA63J-101X	MG R	100Ω	1/16W	J	
	R1634-35	NRSA63J-222X	MG R	2.2kΩ	1/16W	J	
	R1650	NRSA63J-223X	MG R	22kΩ	1/16W	J	
	R1651-52	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J	
	R1654	NRSA63J-223X	MG R	22kΩ	1/16W	J	
	R1655-56	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J	
	R1658-59	QRE121J-2R2Y	C R	2.2Ω	1/2W	J	
	R1660	NRSA63J-103X	MG R	10kΩ	1/16W	J	
	R1661	NRSA63J-683X	MG R	68kΩ	1/16W	J	
	R1662	NRSA63J-333X	MG R	33kΩ	1/16W	J	
	R1663	NRSA63J-103X	MG R	10kΩ	1/16W	J	
	R1664	NRSA63J-222X	MG R	2.2kΩ	1/16W	J	
	R1665-66	NRSA63J-392X	MG R	3.9kΩ	1/16W	J	
	R1667	NRSA63J-103X	MG R	10kΩ	1/16W	J	
	R1668	NRSA63J-683X	MG R	68kΩ	1/16W	J	
	R1669	NRSA63J-563X	MG R	56kΩ	1/16W	J	
	R1670	NRSA63J-153X	MG R	15kΩ	1/16W	J	
	R1671	NRSA63J-272X	MG R	2.7kΩ	1/16W	J	
	R1672	NRSA63J-563X	MG R	56kΩ	1/16W	J	
	R1673-74	NRSA63J-683X	MG R	68kΩ	1/16W	J	
	R1675	NRSA63J-103X	MG R	10kΩ	1/16W	J	
	R1676-77	NRSA63J-472X	MG R	4.7kΩ	1/16W	J	
	R1678	NRSA63J-153X	MG R	15kΩ	1/16W	J	
	R1679	NRSA63J-272X	MG R	2.7kΩ	1/16W	J	
	R1680	NRSA63J-683X	MG R	68kΩ	1/16W	J	
	R1688	NRSA63J-273X	MG R	27kΩ	1/16W	J	
	R1690	NRSA63J-104X	MG R	100kΩ	1/16W	J	
	R1691	NRSA63J-682X	MG R	6.8kΩ	1/16W	J	
	R1692	NRSA63J-104X	MG R	100kΩ	1/16W	J	
	R1693	NRSA63J-103X	MG R	10kΩ	1/16W	J	
	R1696	NRSA63J-222X	MG R	2.2kΩ	1/16W	J	
	R1701	NRSA63J-103X	MG R	10kΩ	1/16W	J	
	R1702-03	NRSA63J-101X	MG R	100Ω	1/16W	J	
	R1704-06	NRSA63J-102X	MG R	1kΩ	1/16W	J	
	R1707-10	NRSA63J-472X	MG R	4.7kΩ	1/16W	J	
	R1711-14	NRSA63J-101X	MG R	100Ω	1/16W	J	
	R1715-17	NRSA63J-103X	MG R	10kΩ	1/16W	J	
	R1718-19	NRSA63J-221X	MG R	220Ω	1/16W	J	
	R1720	NRSA63J-102X	MG R	1kΩ	1/16W	J	
	R1721-24	NRSA63J-221X	MG R	220Ω	1/16W	J	
	R1725	NRSA63J-103X	MG R	10kΩ	1/16W	J	
	R1726	NRSA63J-472X	MG R	4.7kΩ	1/16W	J	
	R1727	NRSA63J-104X	MG R	100kΩ	1/16W	J	
	R1728	NRSA63J-103X	MG R	10kΩ	1/16W	J	
	R1730	NRSA63J-223X	MG R	22kΩ	1/16W	J	
	R1731	NRSA63J-101X	MG R	100Ω	1/16W	J	
	R1732	NRSA02F-393X	MF R	39kΩ	1/10W	F	
	R1733	NRSA63J-273X	MG R	27kΩ	1/16W	J	
	R1734	NRSA63J-391X	MG R	390Ω	1/16W	J	
	R1735	NRSA63J-104X	MG R	100kΩ	1/16W	J	
	R1736	NRSA63J-333X	MG R	33kΩ	1/16W	J	
	R1737	NRSA63J-272X	MG R	2.7kΩ	1/16W	J	
	R1738	NRSA63J-103X	MG R	10kΩ	1/16W	J	
	R1739-41	NRSA63J-101X	MG R	100Ω	1/16W	J	
	R1742	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J	
	R1744	NRSA63J-561X	MG R	560Ω	1/16W	J	
	R1745	NRSA63J-105X	MG R	1MΩ	1/16W	J	
	R1746	NRSA63J-333X	MG R	33kΩ	1/16W	J	
	R1747	NRSA63J-103X	MG R	10kΩ	1/16W	J	
	R1748	NRSA02J-185X	MG R	1.8MΩ	1/10W	J	
	R1749	NRSA02J-155X	MG R	1.5MΩ	1/10W	J	
	R1750	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J	

⚠	Symbol No.	Part No.	Part Name	Description	Local
	RESISTOR				
	R1755-56	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1757-58	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1790	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	R1803	NRSA63J-333X	MG R	33kΩ 1/16W	J
	R1804-07	NRSA63J-750X	MG R	75Ω 1/16W	J
	R1808	NRSA63J-823X	MG R	82kΩ 1/16W	J
	R1809	NRSA63J-391X	MG R	390Ω 1/16W	J
	R1810	NRSA63J-823X	MG R	82kΩ 1/16W	J
	R1811	NRSA63J-391X	MG R	390Ω 1/16W	J
	R1812	NRSA63J-104X	MG R	100kΩ 1/16W	J
	R1813	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1815	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1818	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1820	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1821	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1823	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1824	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1826	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1829	NRSA63J-750X	MG R	75Ω 1/16W	J
	R1830-31	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1832	NRSA63J-391X	MG R	390Ω 1/16W	J
	R1833	NRSA63J-331X	MG R	330Ω 1/16W	J
	R1834-35	NRSA63J-562X	MG R	5.6kΩ 1/16W	J
	R1836	NRSA63J-750X	MG R	75Ω 1/16W	J
	R1837	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1838	QRK126J-121X	C R	120Ω 1/2W	J
	R1839-40	QRE121J-221Y	C R	220Ω 1/2W	J
	R1841-42	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	R1843	NRSA63J-821X	MG R	820Ω 1/16W	J
	R1844	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1845	NRSA63J-102X	MG R	1kΩ 1/16W	J
	R1846	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1847	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1848	NRSA63J-221X	MG R	220Ω 1/16W	J
	R1849	NRSA63J-471X	MG R	470Ω 1/16W	J
	R1880	NRSA63J-202X	MG R	2kΩ 1/16W	J
	R1881	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1882	NRSA63J-181X	MG R	180Ω 1/16W	J
	R1883	NRSA63J-471X	MG R	470Ω 1/16W	J
	R1902	QRF154K-2R2	UNF R	2.2Ω	K
	R1903	QRL039J-473	OM R	47kΩ 3W	J
	R1904	QRE121J-681Y	C R	680Ω 1/2W	J
	R1905	QRM034J-R10	MP R	0.1Ω 3W	J
	R1908	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1909	QRE121J-274Y	C R	270kΩ 1/2W	J
	R1911	QRE121J-472Y	C R	4.7kΩ 1/2W	J
	R1912	QRE121J-222Y	C R	2.2kΩ 1/2W	J
⚠	R1913	QRZ9017-4R7	F R	4.7Ω 1/4W	J
	R1914	QRL039J-473	OM R	47kΩ 3W	J
	R1915	QRE121J-394Y	C R	390kΩ 1/2W	J
	R1916	QRE121J-332Y	C R	3.3kΩ 1/2W	J
	R1917	NRSA63J-101X	MG R	100Ω 1/16W	J
	R1918	NRSA63J-224X	MG R	220kΩ 1/16W	J
	R1919	NRSA63J-104X	MG R	100kΩ 1/16W	J
	R1920	NRSA63J-473X	MG R	47kΩ 1/16W	J
	R1921	QRE121J-563Y	C R	56kΩ 1/2W	J
	R1951	QRE121J-223Y	C R	22kΩ 1/2W	J
	R1952	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
	R1953	QRE121J-152Y	C R	1.5kΩ 1/2W	J
	R1955	QRG01GJ-470	OM R	47Ω 1W	J
	R1957	QRE121J-5R6Y	C R	5.6Ω 1/2W	J
	R1958	QRL039J-820	OM R	82Ω 3W	J
	R1959	QRE121J-820Y	C R	82Ω 1/2W	J
	R1960	NRSA63J-391X	MG R	390Ω 1/16W	J
	R1961	QRL029J-223	OM R	22kΩ 2W	J
	R1962	NRSA63J-681X	MG R	680Ω 1/16W	J
	R1963	QRE121J-332Y	C R	3.3kΩ 1/2W	J
	R1964	NRSA63J-103X	MG R	10kΩ 1/16W	J
	R1965	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	R1966	NRSA63J-682X	MG R	6.8kΩ 1/16W	J
	R1967	NRSA63J-473X	MG R	47kΩ 1/16W	J
	R1968	NRSA63J-331X	MG R	330Ω 1/16W	J

⚠	Symbol No.	Part No.	Part Name	Description	Local
	RESISTOR				
	R1969	QRT029J-2R7	MF R	2.7Ω 2W	J
	R1970	NRSA63J-153X	MG R	15kΩ 1/16W	J
	R1971	NRSA63J-183X	MG R	18kΩ 1/16W	J
⚠	R1991	QRZ0057-825	C R	8.2MΩ 1W	J
	CAPACITOR				
	C1001	NCB31HK-103X	C CAP.	0.01µF 50V	K
	C1002	QETN1HM-106Z	E CAP.	10µF 50V	M
	C1003	QFV71HJ-104Z	MF CAP.	0.1µF 50V	J
	C1004	QETN1CM-477Z	E CAP.	470µF 16V	M
	C1005	NCB31HK-222X	C CAP.	2200pF 50V	K
	C1006	QETN1CM-336Z	E CAP.	33µF 16V	M
	C1007	NCB31HK-103X	C CAP.	0.01µF 50V	K
	C1101-05	NCB31HK-472X	C CAP.	4700pF 50V	K
	C1106-07	NCB31HK-103X	C CAP.	0.01µF 50V	K
	C1108	NCB31HK-472X	C CAP.	4700pF 50V	K
	C1109	QETN1HM-106Z	E CAP.	10µF 50V	M
	C1150-51	NCB31HK-472X	C CAP.	4700pF 50V	K
	C1301-02	NCB31CK-104X	C CAP.	0.1µF 16V	K
	C1304-05	NCB31HK-103X	C CAP.	0.01µF 50V	K
	C1306	NCB31CK-104X	C CAP.	0.1µF 16V	K
	C1307	NDC31HJ-330X	C CAP.	33pF 50V	J
	C1308	NCB31HK-103X	C CAP.	0.01µF 50V	K
	C1309	QETN1HM-106Z	E CAP.	10µF 50V	M
	C1401	QETN1HM-105Z	E CAP.	1µF 50V	M
	C1402	QCB31HK-682Z	C CAP.	6800pF 50V	K
	C1403	QEHR1VM-107Z	E CAP.	100µF 35V	M
	C1411-12	NCF21HZ-334X	C CAP.	0.33µF 50V	Z
	C1413	QFLC2AJ-563Z	M CAP.	0.056µF 100V	J
	C1422	QEHR1VM-108Z	E CAP.	1000µF 35V	M
	C1471	QETN1HM-106Z	E CAP.	10µF 50V	M
	C1480	QETN1HM-106Z	E CAP.	10µF 50V	M
	C1483	QEZ0195-475Z	E CAP.	4.7µF 50V	M
	C1485	QETN1HM-226Z	E CAP.	22µF 50V	M
	C1521	QETN1VM-476Z	E CAP.	47µF 35V	M
	C1522	QFLC1HJ-332Z	M CAP.	3300pF 50V	J
	C1523	QFLC1HJ-223Z	M CAP.	0.022µF 50V	J
	C1524	QFZ0196-382	MPP CAP.	3800pF 1.5kVH	±3%
	C1525	QFZ0200-143	MPP CAP.	0.014µF 1.5kVH	±3%
	C1526	QFP32JJ-223	PP CAP.	0.022µF 630V	J
	C1527-28	QFZ0199-224	MPP CAP.	0.22µF 250V	J
	C1529	QENC2AM-225Z	E CAP.	2.2µF 100V	M
	C1530	QCB32HK-561Z	C CAP.	560pF 500V	K
	C1531	QEHR1EM-108Z	E CAP.	1000µF 25V	M
	C1532	QCB32HK-561Z	C CAP.	560pF 500V	K
	C1533	QEHR1EM-108Z	E CAP.	1000µF 25V	M
	C1534	QCB32HK-561Z	C CAP.	560pF 500V	K
	C1536	QFLC1HJ-103Z	M CAP.	0.01µF 50V	J
	C1540	QFV71HJ-104Z	MF CAP.	0.1µF 50V	J
	C1541	QETN2EM-106Z	E CAP.	10µF 250V	M
	C1550	NCB31CK-104X	C CAP.	0.1µF 16V	K
	C1561	QFV11HJ-683Z	TF CAP.	0.068µF 50V	J
	C1566	QFZ0200-113	MPP CAP.	0.011µF 1.5kVH	±3%
	C1591	QETN1CM-107Z	E CAP.	100µF 16V	M
	C1592	QETM2CM-227	E CAP.	220µF 160V	M
	C1593	QETN1EM-476Z	E CAP.	47µF 25V	M
	C1602	NCB31HK-103X	C CAP.	0.01µF 50V	K
	C1603	QETN1CM-107Z	E CAP.	100µF 16V	M
	C1604	NCB31CK-104X	C CAP.	0.1µF 16V	K
	C1606-07	NDC31HJ-2R0X	C CAP.	2.0pF 50V	J
	C1608-09	NCB31HK-103X	C CAP.	0.01µF 50V	K
	C1610	QETN1HM-106Z	E CAP.	10µF 50V	M
	C1611	NCB31CK-104X	C CAP.	0.1µF 16V	K
	C1612	QETN1HM-106Z	E CAP.	10µF 50V	M
	C1613	NCB31CK-104X	C CAP.	0.1µF 16V	K
	C1615	QETN1HM-106Z	E CAP.	10µF 50V	M
	C1616	NCB31CK-104X	C CAP.	0.1µF 16V	K
	C1617	QETN1HM-106Z	E CAP.	10µF 50V	M
	C1619	NCB31CK-104X	C CAP.	0.1µF 16V	K
	C1620	QETN1HM-106Z	E CAP.	10µF 50V	M

⚠	Symbol No.	Part No.	Part Name	Description			Local
	CAPACITOR						
	C1621-22	NCB31HK-102X	C CAP.	1000pF	50V	K	
	C1623-24	NCF31AZ-105X	C CAP.	1μF	10V	Z	
	C1650	QEHR1HM-106Z	E CAP.	10μF	50V	M	
	C1651	QEHQ1HM-107	E CAP.	100μF	50V	M	
	C1652	QETN1HM-106Z	E CAP.	10μF	50V	M	
	C1659-61	NCF21HZ-224X	C CAP.	0.22μF	50V	Z	
	C1662	QETN1HM-106Z	E CAP.	10μF	50V	M	
	C1663	NCF21HZ-224X	C CAP.	0.22μF	50V	Z	
	C1665	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1666-67	NCB31HK-222X	C CAP.	2200pF	50V	K	
	C1668-69	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1670	NCB31HK-223X	C CAP.	0.022μF	50V	K	
	C1671	QETN1EM-476Z	E CAP.	47μF	25V	M	
	C1672	NCB31HK-473X	C CAP.	0.047μF	50V	K	
	C1673	QETN1CM-336Z	E CAP.	33μF	16V	M	
	C1674	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1675	NCB31HK-473X	C CAP.	0.047μF	50V	K	
	C1676	NCB31HK-223X	C CAP.	0.022μF	50V	K	
	C1681-82	QETN1CM-227Z	E CAP.	220μF	16V	M	
	C1683	QETN1CM-336Z	E CAP.	33μF	16V	M	
	C1685-86	NCF31AZ-105X	C CAP.	1μF	10V	Z	
	C1702	QETN1HM-106Z	E CAP.	10μF	50V	M	
	C1703-04	NDC31HJ-220X	C CAP.	22pF	50V	J	
	C1706	NCB21EK-224X	C CAP.	0.22μF	25V	K	
	C1707	QETN1CM-107Z	E CAP.	100μF	16V	M	
	C1709	QETN1CM-477Z	E CAP.	470μF	16V	M	
	C1710	NCB21EK-224X	C CAP.	0.22μF	25V	K	
	C1711	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1712	QETN1CM-476Z	E CAP.	47μF	16V	M	
	C1713	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1720	QETN1EM-476Z	E CAP.	47μF	25V	M	
	C1725	NCB31HK-681X	C CAP.	680pF	50V	K	
	C1729	QETN1CM-476Z	E CAP.	47μF	16V	M	
	C1730-31	NCB21EK-224X	C CAP.	0.22μF	25V	K	
	C1732	QETN1CM-107Z	E CAP.	100μF	16V	M	
	C1733	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1734-35	NCB31HK-222X	C CAP.	2200pF	50V	K	
	C1736-37	QETN1HM-105Z	E CAP.	1μF	50V	M	
	C1738	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1739	NFV41CJ-104X	MPP CAP.	0.1μF	16V	J	
	C1740	QETN1HM-225Z	E CAP.	2.2μF	50V	M	
	C1741-42	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1743	QETN1CM-107Z	E CAP.	100μF	16V	M	
	C1744	NCB31HK-222X	C CAP.	2200pF	50V	K	
	C1745-47	NCB31HK-473X	C CAP.	0.047μF	50V	K	
	C1749	QETN1HM-106Z	E CAP.	10μF	50V	M	
	C1751-53	NCB21HK-104X	C CAP.	0.1μF	50V	K	
	C1801-04	QETN1HM-106Z	E CAP.	10μF	50V	M	
	C1805	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1807-08	NCF31AZ-105X	C CAP.	1μF	10V	Z	
	C1810	NCF31AZ-105X	C CAP.	1μF	10V	Z	
	C1811	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1812	NCF31AZ-105X	C CAP.	1μF	10V	Z	
	C1813	NCB31HK-103X	C CAP.	0.01μF	50V	K	
	C1814	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1815	NCF31AZ-105X	C CAP.	1μF	10V	Z	
	C1817	NCF31AZ-105X	C CAP.	1μF	10V	Z	
	C1819	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1820-21	NCF31AZ-105X	C CAP.	1μF	10V	Z	
	C1822	QETN1CM-477Z	E CAP.	470μF	16V	M	
	C1823-24	QETN1CM-107Z	E CAP.	100μF	16V	M	
	C1825	NCB31HK-103X	C CAP.	0.01μF	50V	K	
	C1826	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1827	NCB31HK-103X	C CAP.	0.01μF	50V	K	
	C1829-31	NCB31HK-103X	C CAP.	0.01μF	50V	K	
	C1833	QETN1HM-226Z	E CAP.	22μF	50V	M	
	C1834	NDC31HJ-181X	C CAP.	180pF	50V	J	
⚠	C1902	QFZ9073-104	MF CAP.	0.1μF			
	C1903-05	QCZ9015-102Z	C CAP.	1000pF	250V	Z	
	C1907	QEZ0371-337	E CAP.	330μF	400V	M	
	C1909	QCZ0325-821	C CAP.	820pF	2000V	K	
	C1910	NDC31HJ-471X	C CAP.	470pF	50V	J	

⚠	Symbol No.	Part No.	Part Name	Description			Local
	CAPACITOR						
	C1911	QETN1VM-476Z	E CAP.	47μF	35V	M	
	C1916	QETN1EM-476Z	E CAP.	47μF	25V	M	
	C1917	QCB32HK-181Z	C CAP.	180pF	500V	K	
	C1918	QCB32HK-103	C CAP.	0.01μF	500V	K	
	C1919	QCZ0325-391	C CAP.	390pF	2000V	K	
	C1952	QCB32HK-471Z	C CAP.	470pF	500V	K	
	C1953	QEHQ1VM-228	E CAP.	2200μF	35V	M	
	C1955	QCB32HK-471Z	C CAP.	470pF	500V	K	
	C1956	QETN1VM-107Z	E CAP.	100μF	35V	M	
	C1957	QCB31HK-471Z	C CAP.	470pF	50V	K	
	C1958	QEHR1CM-108Z	E CAP.	1000μF	16V	M	
	C1959	QCZ0364-561	C CAP.	560pF			
	C1960	QEZ0203-227	E CAP.	220μF	160V	M	
	C1961	QETN1CM-476Z	E CAP.	47μF	16V	M	
	C1962	QETN1HM-106Z	E CAP.	10μF	50V	M	
	C1963	QETN1CM-477Z	E CAP.	470μF	16V	M	
	C1964	QETN1EM-476Z	E CAP.	47μF	25V	M	
	C1965	QETN1VM-476Z	E CAP.	47μF	35V	M	
	C1966	QETN1CM-107Z	E CAP.	100μF	16V	M	
	C1968	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1970	QETN1CM-107Z	E CAP.	100μF	16V	M	
	C1972	QETN1EM-476Z	E CAP.	47μF	25V	M	
	C1974	NCB31CK-104X	C CAP.	0.1μF	16V	K	
	C1975	QETN1CM-227Z	E CAP.	220μF	16V	M	
	C1977	QETN1EM-476Z	E CAP.	47μF	25V	M	
	C1978	NCB21HK-104X	C CAP.	0.1μF	50V	K	
	C1980	QETN1CM-107Z	E CAP.	100μF	16V	M	
	C1981	NCB31HK-102X	C CAP.	1000pF	50V	K	
	C1982	QETN1CM-476Z	E CAP.	47μF	16V	M	
	C1983	QETN1CM-107Z	E CAP.	100μF	16V	M	
⚠	C1991	QCZ9079-102	C CAP.	1000pF	AC250V	M	
⚠	C1992-93	QCZ9079-471	C CAP.	470pF	AC250V	M	

TRANSFORMER

⚠			
	T1521	QQR1229-001	DRIVE TRANSF.
⚠	T1551	QQH0096-001	FLYBACK TRANSF.
	T1561	QQR1153-001	DEF.TRANSF.
⚠	T1901	QQS0110-001	SWICH.TRANSF.

COIL

L1001-02	QQL244K-8R2Z	COIL	8.2μH	K
L1101-02	QQL244J-5R6Z	COIL	5.6μH	J
L1103	QQL244K-100Z	COIL	10μH	K
L1104	QQL244K-180Z	COIL	18μH	K
L1301	QQL244K-221Z	COIL	220μH	K
L1401	QQL26AK-220Z	COIL	22μH	K
L1480	QQR1138-001	CHOKE COIL		
L1523	QQR1243-001	LINEARITY COIL		
L1541	QQL244K-220Z	COIL	22μH	K
L1561	QQLZ028-272	CHOKE COIL	2.7mH	
L1601	QQL244K-4R7Z	COIL	4.7μH	K
L1701-02	QQL244K-100Z	COIL	10μH	K
L1731	QQL244J-101Z	COIL	100μH	J
L1951	QQLZ034-460	CHOKE COIL	46μH	
L1953	QQL244J-5R6Z	COIL	5.6μH	J
L1954	QQL26AK-820Z	COIL	82μH	K

DIODE

D1101	DAN235K-X	SI.DIODE
D1401	RGP10J-5025-T3	SI.DIODE
D1402	MTZJ75-T2	ZENER DIODE
D1405	1N4003-T2	SI.DIODE
D1408	MA111-X	SI.DIODE
D1480	MTZJ4.3A-T2	ZENER DIODE
D1521	RH3G-F1	SI.DIODE
D1522	31DF6N-FC5	DIODE

⚠	Symbol No.	Part No.	Part Name	Description	Local

DIODE

	D1523	RGP10J-5025-T3	SI.DIODE		
	D1541	RGP10J-5025-T3	SI.DIODE		
	D1550	MA111-X	SI.DIODE		
	D1551	EU2-T3	SI.DIODE		
	D1553	RGP10J-5025-T3	SI.DIODE		
	D1554	RGP10J-5025-T3	SI.DIODE		
	D1592	MA3075/H/-X	ZENER DIODE		
	D1652-53	MA3330/L/-X	ZENER DIODE		
	D1682	MA111-X	SI.DIODE		
	D1701	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	D1702	MA3020-X	ZENER DIODE		
	D1730-33	MA111-X	SI.DIODE		
	D1801-02	MA3120/M/-X	ZENER DIODE		
	D1901	GSIB460	DIODE		
	D1902	MTZJ33B-T2	ZENER DIODE		
	D1903	1SS133-T2	SI.DIODE		
	D1906	MTZJ27B-T2	ZENER DIODE		
	D1907	MTZJ33B-T2	ZENER DIODE		
	D1908	MA3200/M/-X	ZENER DIODE		
	D1909	MA111-X	SI.DIODE		
	D1910	MA3075/H/-X	ZENER DIODE		
	D1911	RGP10J-5025-T3	SI.DIODE		
	D1912	RGP10J-5025-T3	SI.DIODE		
	D1913	RGP10M-5010-T3	SI.DIODE		
	D1914	1SS133-T2	SI.DIODE		
	D1915	MA3068/M/-X	ZENER DIODE		
	D1916	MTZJ15B-T2	ZENER DIODE		
	D1950	RGP10J-5025-T3	SI.DIODE		
	D1952	ERC30-02L38	SI.DIODE		
	D1953	RGP10J-5025-T3	SI.DIODE		
	D1954	RU30A-F1	SI.DIODE		
	D1955	1SR35-400A-T2	SI.DIODE		
	D1956	31DF6N-FC5	DIODE		
	D1958	MTZJ5.1A-T2	ZENER DIODE		
	D1960	MA111-X	SI.DIODE		
	D1964	MA3330/L/-X	ZENER DIODE		
	D1966	MA3039/H/-X	ZENER DIODE		
	D1968-69	MA111-X	SI.DIODE		
	D1970	MTZJ9.1B-T2	ZENER DIODE		
	D1971	MA111-X	SI.DIODE		

TRANSISTOR

	Q1101	2SC5083/L-P/-T	SI.TRANSISTOR
	Q1102-03	DTC124EKA-X	DIGI.TRANSISTOR
	Q1104	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1105-06	DTC124EKA-X	DIGI.TRANSISTOR
	Q1107	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1108	2SC2412K/QR/-X	SI.TRANSISTOR
	Q1109	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1110	DTC124EKA-X	DIGI.TRANSISTOR
	Q1111	2SC2412K/QR/-X	SI.TRANSISTOR
	Q1150	2SC2412K/QR/-X	SI.TRANSISTOR
	Q1301-02	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1303	DTC124EKA-X	DIGI.TRANSISTOR
	Q1304	2SC2412K/QR/-X	SI.TRANSISTOR
	Q1480	2SD1408/OY/-LB	SI.TRANSISTOR
	Q1521	2SC2655/Y/-T	SI.TRANSISTOR
	Q1522	2SD2634-YD	SI.TRANSISTOR
	Q1591	2SA1208/ST/Z1-T	SI.TRANSISTOR
	Q1592	DTC124EKA-X	DIGI.TRANSISTOR
	Q1660-61	2SC2412K/QR/-X	SI.TRANSISTOR
	Q1683-84	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1685-86	DTC323TK-X	DIGI.TRANSISTOR
	Q1687	2SC2412K/QR/-X	SI.TRANSISTOR
	Q1701-02	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1703	2SC2412K/QR/-X	SI.TRANSISTOR
	Q1720	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1801-02	DTC323TK-X	DIGI.TRANSISTOR
	Q1803	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1804	2SC1740S/QR/-T	SI.TRANSISTOR

⚠	Symbol No.	Part No.	Part Name	Description	Local

TRANSISTOR

	Q1860	2SC2412K/QR/-X	SI.TRANSISTOR
	Q1861-62	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1901	2SC3852A	SI.TRANSISTOR
	Q1902-03	2SA1037AK/QR/-X	SI.TRANSISTOR
	Q1951	2SA1013/RO/-T	SI.TRANSISTOR
	Q1952-55	2SC2412K/QR/-X	SI.TRANSISTOR

IC

	IC1301	TDA9181T/N1-X	I.C(MONO-ANA)	
	IC1401	LA78041	I.C(MONO-ANA)	
	IC1461	JLC1562BF-X	I.C(DIGI-MOS)	
	IC1480	UPC358G2-XE	I.C(MONO-ANA)	
	IC1601	MSP3415D-QG-B3X	I.C(MONO-ANA)	
	IC1650	AN5277	I.C(MONO-ANA)	
	IC1665	BA4558F-X	I.C(MONO-ANA)	
	IC1701	TDA9386N12S0555	I.C(MICRO-COMP)	
	IC1702	AT24C08-29LS	I.C(MEMORY-OTH)	(SERVICE)
	IC1801	MM1492AF	I.C(MONO-ANA)	
	IC1901	STR-F6456S/F7	I.C(HYBRID)	
	IC1951	SE135N	I.C(HYBRID)	
	IC1972	L88M33T-X	I.C(MONO-ANA)	
	IC1973	BA17812T	I.C(MONO-ANA)	
	IC1974	BA51W12ST-V5	I.C(MONO-ANA)	

OTHERS

	CF1103	TPSH6.0MB	CERAMIC FILTER			
	CF1104	TPS5.5MW	CERAMIC FILTER			
	CF1105	TPS6.5MB	CERAMIC FILTER			
	CF1106	QAX0639-001Z	CERAMIC FILTER			
⚠	CP1650	ICP-N50-Y	I.C.PROTECT			
⚠	CP1951	ICP-N75-Y	I.C.PROTECT			
⚠	CP1953	ICP-N38-Y	I.C.PROTECT			
	J1801	QNN0349-001	PIN JACK			
	J1802	QNN0349-002	PIN JACK			
	J1803	QNN0348-001	PIN JACK			
	J1804	QNN0349-001	PIN JACK			
	K1301	CE41433-001Z	BEADS CORE			
	K1705	QQR1214-001Y	FERRITE BEADS			
	K1903	QQR1214-001Y	FERRITE BEADS			
	K1904	CE42050-001Z	CORE			
	K1951	QQR1214-001Y	FERRITE BEADS			
	K1953-55	QQR1214-001Y	FERRITE BEADS			
	LC1601	CE42482-103Y	EMI FILTER			
⚠	LF1901	QQR1035-002	LINE FILTER			
⚠	PC1901	PC123F2	I.C(PH.COUPLER)			
⚠	RY1901	QSK0061-001	RELAY			
	SF1101	QAX0663-001	SAW FILTER			
	SF1102	QAX0594-001	SAW FILTER			
	TH1901	QAD0134-4R5	P.THERMISTOR			
	TU1001	QAU0185-004	TUNER			
	W1010	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J
	W1067	QQR1214-001Y	FERRITE BEADS			
	W1239	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J
	W1257	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J
	W1306-07	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J
	W1309	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J
	W1321	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J
	W1325-26	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J
	W1330	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J
	W1333	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J
	W1379	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J
	W1380	QRE141J-0R0Y	C R	0.0Ω	1/4W	J
	W1383	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J
	W1386	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J
	W1393	QQR1214-001Y	FERRITE BEADS			
	W1395	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J
	W1397	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J
	W1405	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J
	W1418	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J

⚠	Symbol No.	Part No.	Part Name	Description		Local
	OTHERS					
	W1423	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J
	W1428	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J
	X1601	CE42546-001Z	CRYSTAL			
	X1701	QAX0688-001	CRYSTAL			
	Y1004	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J
	Y1602-03	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J

CRT SOCKET PW BOARD ASS'Y(SCH-3001A-BK)

⚠	Symbol No.	Part No.	Part Name	Description		Local
	RESISTOR					
	R3101	NRSA63J-682X	MG R	6.8kΩ	1/16W	J
	R3102	NRSA63J-102X	MG R	1kΩ	1/16W	J
	R3103	NRSA63J-153X	MG R	15kΩ	1/16W	J
	R3104	NRSA63J-682X	MG R	6.8kΩ	1/16W	J
	R3105	NRSA63J-102X	MG R	1kΩ	1/16W	J
	R3106	NRSA63J-272X	MG R	2.7kΩ	1/16W	J
	R3107	NRSA63J-682X	MG R	6.8kΩ	1/16W	J
	R3108	NRSA63J-102X	MG R	1kΩ	1/16W	J
	R3109	NRSA63J-562X	MG R	5.6kΩ	1/16W	J
	R3110-12	NRSA63J-101X	MG R	100Ω	1/16W	J
	R3113	NRSA63J-563X	MG R	56kΩ	1/16W	J
	R3125	NRSA63J-222X	MG R	2.2kΩ	1/16W	J
	R3126	QRE121J-393Y	C R	39kΩ	1/2W	J
	R3128	NRSA63J-473X	MG R	47kΩ	1/16W	J
	R3129	NRSA63J-223X	MG R	22kΩ	1/16W	J
	R3142	NRSA63J-101X	MG R	100Ω	1/16W	J
	R3150	QRZ0107-152Z	C R	1.5kΩ	1/4W	J
	R3152	NRSA63J-101X	MG R	100Ω	1/16W	J
	R3160	NRSA63J-101X	MG R	100Ω	1/16W	J
	R3166	QRZ0107-152Z	C R	1.5kΩ	1/4W	J
	R3170	QRZ0107-474Z	C R	470kΩ	1/4W	J
	R3171	QRZ0107-152Z	C R	1.5kΩ	1/4W	J
	R3172	NRSA63J-101X	MG R	100Ω	1/16W	J
⚠	R3175	QRZ9021-1R5	F R	1.5Ω	1W	J
	R3176	QRE121J-123Y	C R	12kΩ	1/2W	J
	R3211	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J
	R3212	NRSA63J-153X	MG R	15kΩ	1/16W	J
	R3213	NRSA63J-222X	MG R	2.2kΩ	1/16W	J
	R3214	NRSA63J-152X	MG R	1.5kΩ	1/16W	J
	R3215	NRSA63J-680X	MG R	68Ω	1/16W	J
	R3216	NRSA63J-221X	MG R	220Ω	1/16W	J
⚠	R3217	QRJ146J-100X	C R	10Ω	1/4W	J
	R3221-22	NRSA63J-470X	MG R	47Ω	1/16W	J
	R3224	NRSA63J-122X	MG R	1.2kΩ	1/16W	J
	R3225-26	QRE121J-563Y	C R	56kΩ	1/2W	J
	R3227	NRSA63J-122X	MG R	1.2kΩ	1/16W	J
	R3228	NRSA63J-390X	MG R	39Ω	1/16W	J
	R3229-30	QRE121J-2R7Y	C R	2.7Ω	1/2W	J
	R3231	NRSA63J-390X	MG R	39Ω	1/16W	J
	R3232	QRE121J-121Y	C R	120Ω	1/2W	J
	R3233	QRL029J-391	OM R	390Ω	2W	J
	R3251	NRSA63J-822X	MG R	8.2kΩ	1/16W	J
	R3252	NRSA63J-222X	MG R	2.2kΩ	1/16W	J
	R3253	NRSA63J-101X	MG R	100Ω	1/16W	J
	R3254	NRSA63J-563X	MG R	56kΩ	1/16W	J
	R3255	NRSA63J-223X	MG R	22kΩ	1/16W	J
	R3256	NRSA63J-681X	MG R	680Ω	1/16W	J
	R3257	NRSA63J-102X	MG R	1kΩ	1/16W	J
	R3258	NRSA63J-182X	MG R	1.8kΩ	1/16W	J
	R3259	NRSA63J-102X	MG R	1kΩ	1/16W	J
	R3260	NRSA63J-271X	MG R	270Ω	1/16W	J
	R3261-63	NRSA63J-101X	MG R	100Ω	1/16W	J
	R3264	NRSA63J-222X	MG R	2.2kΩ	1/16W	J
	R3265	NRSA63J-102X	MG R	1kΩ	1/16W	J
	R3266	NRSA63J-103X	MG R	10kΩ	1/16W	J
	R3267	NRSA63J-102X	MG R	1kΩ	1/16W	J

⚠	Symbol No.	Part No.	Part Name	Description		Local
	RESISTOR					
	R3268	NRSA63J-222X	MG R	2.2kΩ	1/16W	J
	R3269	NRSA63J-102X	MG R	1kΩ	1/16W	J
	R3270	NRSA63J-103X	MG R	10kΩ	1/16W	J
	R3271	NRSA63J-102X	MG R	1kΩ	1/16W	J
	R3272	NRSA63J-222X	MG R	2.2kΩ	1/16W	J
	R3273	NRSA63J-102X	MG R	1kΩ	1/16W	J
	R3274	NRSA63J-103X	MG R	10kΩ	1/16W	J
	R3275	NRSA63J-102X	MG R	1kΩ	1/16W	J
	CAPACITOR					
	C3101	QETN1CM-477Z	E CAP.	470µF	16V	M
	C3102	QFK62EK-104Z	MM CAP.	0.1µF	250V	K
	C3107	QETM2EM-336	E CAP.	33µF	250V	M
	C3109	QCZ0131-472	C CAP.	4700pF	2000V	K
	C3110	QCZ0131-222	C CAP.	2200pF	2000V	K
	C3121	QETN1HM-225Z	E CAP.	2.2µF	50V	M
	C3123	QETN2EM-475Z	E CAP.	4.7µF	250V	M
	C3204	NDC31HJ-561X	C CAP.	560pF	50V	J
	C3205	QETN1HM-335Z	E CAP.	3.3µF	50V	M
	C3206	QETN1HM-106Z	E CAP.	10µF	50V	M
	C3209	QETN1CM-107Z	E CAP.	100µF	16V	M
	C3211	NDC31HJ-391X	C CAP.	390pF	50V	J
	C3212	QCB32HK-472Z	C CAP.	4700pF	500V	K
	C3213	NDC31HJ-561X	C CAP.	560pF	50V	J
	C3214	QETN2CM-106Z	E CAP.	10µF	160V	M
	C3215	QCB32HK-472Z	C CAP.	4700pF	500V	K
	C3216	QETN2CM-106Z	E CAP.	10µF	160V	M
	C3217-18	QETN1AM-107Z	E CAP.	100µF	10V	M
	C3219	QETN1AM-337Z	E CAP.	330µF	10V	M
	C3251	QENC1HM-105Z	E CAP.	1µF	50V	M
	C3252	NDC31HJ-151X	C CAP.	150pF	50V	J
	C3253	NDC31HJ-560X	C CAP.	56pF	50V	J
	C3255	NCB31HK-103X	C CAP.	0.01µF	50V	K
	C3264-66	QETN1AM-107Z	E CAP.	100µF	10V	M
	C3267	QETN1CM-227Z	E CAP.	220µF	16V	M
	COIL					
	L3121	QQL244J-5R6Z	COIL	5.6µH		J
	L3251	QQL244K-150Z	COIL	15µH		K
	DIODE					
	D3107	MA111-X	SI.DIODE			
	D3108	MA3075/H/-X	ZENER DIODE			
	D3109	MA3051/H/-X	ZENER DIODE			
	D3110	MA111-X	SI.DIODE			
	D3111	MA3051/H/-X	ZENER DIODE			
	D3112	MA111-X	SI.DIODE			
	D3113	MA3051/H/-X	ZENER DIODE			
	D3114	MA111-X	SI.DIODE			
	D3115-17	EU01N-T2	SI.DIODE			
	D3121-23	1N4003-T2	SI.DIODE			
	D3124	MA111-X	SI.DIODE			
	D3125	MTZJ75-T2	ZENER DIODE			
	D3201-02	NRSA63J-0R0X	MG R	0.0Ω	1/16W	J
	D3203	RGP10J-5025-T3	SI.DIODE			
	D3204	RGP10J-5025-T3	SI.DIODE			
	TRANSISTOR					
	Q3101-06	2SC2412K/QR/-X	SI.TRANSISTOR			
	Q3121	2SC4212/Z1/	SI.TRANSISTOR			
	Q3122	2SA1037AK/QR/-X	SI.TRANSISTOR			
	Q3204-05	2SC1740S/QR/-T	SI.TRANSISTOR			
	Q3206	2SA933AS/QR/-T	SI.TRANSISTOR			
	Q3209	2SA1964/DE/	SI.TRANSISTOR			
	Q3210	2SC5248/DE/	SI.TRANSISTOR			
	Q3251	2SA1037AK/QR/-X	SI.TRANSISTOR			
	Q3252	2SC2412K/QR/-X	SI.TRANSISTOR			
	Q3253	2SA1037AK/QR/-X	SI.TRANSISTOR			
	Q3261-63	2SA1037AK/QR/-X	SI.TRANSISTOR			
	Q3264-66	2SC2412K/QR/-X	SI.TRANSISTOR			

⚠	Symbol No.	Part No.	Part Name	Description	Local
	IC				
	IC3101	TDA6107Q/N2	I.C(MONO-ANA)		
	OTHERS				
	CL3001	QZW0028-002	WIRE CLAMP		
	DL3261-63	CE41925-001	DELAY LINE		
⚠	FR3201	QRZ9021-561			
	K3201-04	CE41492-001Z	CHOKE COIL		
	SG3101-03	QAF0006-501	ARRESTER		
	SG3104	QAF0041-272	ARRESTER		
⚠	SK3001	CE42670-001	C.R.T.SOCKET		
	W3019	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	W3034	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J

FRONT CONTROL PW BOARD ASS'Y (SCH-8001A-BK)

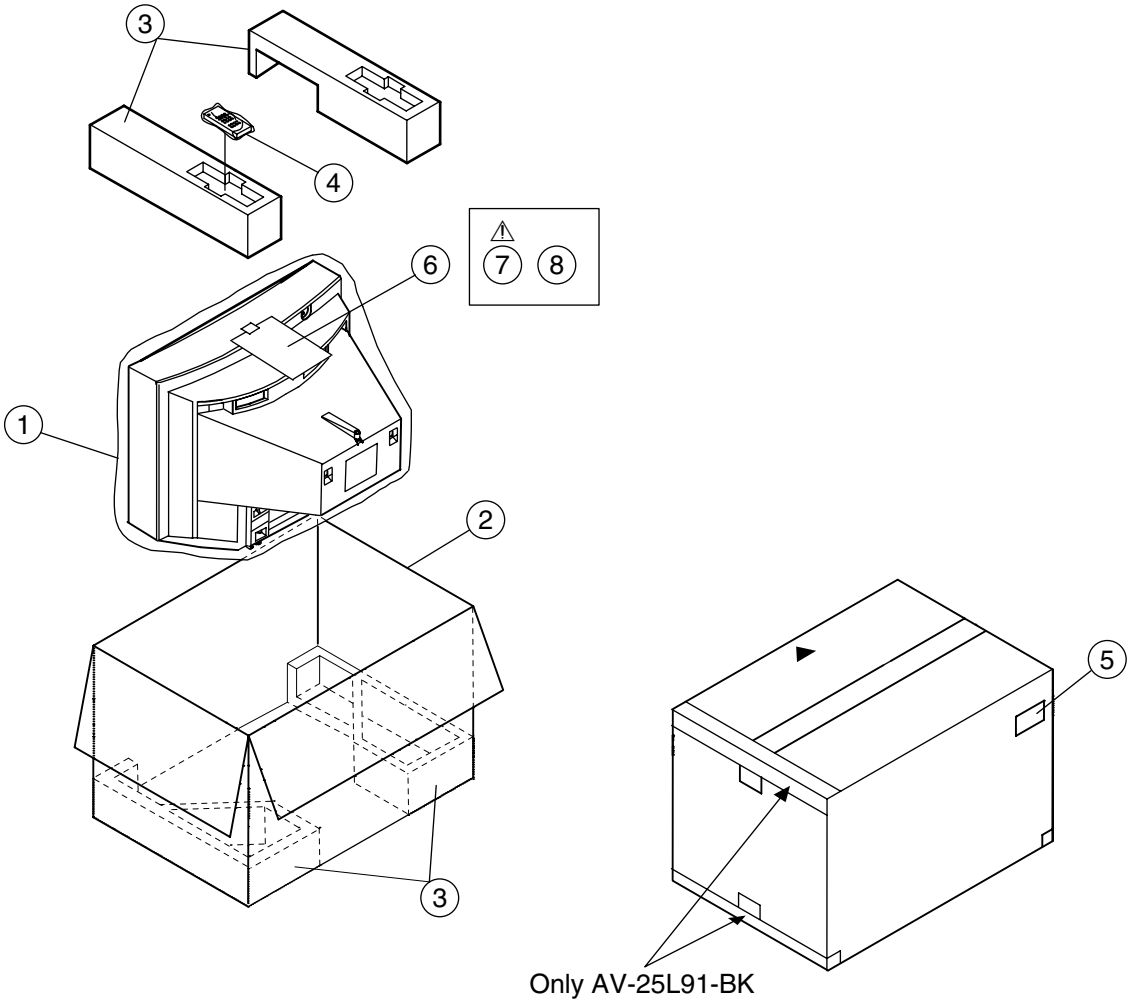
⚠	Symbol No.	Part No.	Part Name	Description	Local
	RESISTOR				
	R8482	NRSA63J-124X	MG R	120kΩ 1/16W	J
	R8483	NRSA63J-683X	MG R	68kΩ 1/16W	J
	R8484-85	NRSA63J-562X	MG R	5.6kΩ 1/16W	J
	R8486	NRSA63J-333X	MG R	33kΩ 1/16W	J
	R8487	NRSA63J-332X	MG R	3.3kΩ 1/16W	J
	R8488	NRSA63J-154X	MG R	150kΩ 1/16W	J
	R8489	NRSA63J-104X	MG R	100kΩ 1/16W	J
	R8491-92	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	R8495	NRSA63J-152X	MG R	1.5kΩ 1/16W	J
	R8497	NRSA63J-562X	MG R	5.6kΩ 1/16W	J
	R8499	QRE121J-561Y	C R	560Ω 1/2W	J
	R8801	NRSA63J-562X	MG R	5.6kΩ 1/16W	J
	R8802	NRSA63J-392X	MG R	3.9kΩ 1/16W	J
	R8803	NRSA63J-682X	MG R	6.8kΩ 1/16W	J
	R8805	NRSA63J-682X	MG R	6.8kΩ 1/16W	J
	R8807	NRSA63J-181X	MG R	180Ω 1/16W	J
	R8808	NRSA63J-221X	MG R	220Ω 1/16W	J
	R8809	NRSA63J-331X	MG R	330Ω 1/16W	J
	R8810	NRSA63J-471X	MG R	470Ω 1/16W	J
	R8811	NRSA63J-821X	MG R	820Ω 1/16W	J
	R8812	NRSA63J-122X	MG R	1.2kΩ 1/16W	J
	R8813	NRSA63J-471X	MG R	470Ω 1/16W	J
	R8815-16	QRE121J-271Y	C R	270Ω 1/2W	J
	R8817-18	NRSA63J-102X	MG R	1kΩ 1/16W	J
	R8826	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
	R8827-28	NRSA63J-333X	MG R	33kΩ 1/16W	J
	R8830-31	NRSA63J-222X	MG R	2.2kΩ 1/16W	J
⚠	R8901	QRZ0111-474	C R	470kΩ 1/2W	K

⚠	Symbol No.	Part No.	Part Name	Description	Local
	CAPACITOR				
	C8481-84	NCB21EK-224X	C CAP.	0.22µF 25V	K
	C8485	QETN1EM-476Z	E CAP.	47µF 25V	M
	C8487	QFLC1HJ-103Z	M CAP.	0.01µF 50V	J
	C8660-61	QETN1VM-108Z	E CAP.	1000µF 35V	M
	C8801	QETN1HM-106Z	E CAP.	10µF 50V	M
	C8802	QETN1CM-107Z	E CAP.	100µF 16V	M
	C8803	NCB31CK-104X	C CAP.	0.1µF 16V	K
	C8815	QETN1CM-107Z	E CAP.	100µF 16V	M
⚠	C8901	QFZ9073-224	MF CAP.	0.22µF	
	COIL				
	L8401	QQL244K-820Z	COIL	82µH	K
	DIODE				
	D8601-02	MA3330/L/-X	ZENER DIODE		
	D8801	MA111-X	SI.DIODE		
	D8802	P1241-04	C.D.S.		
	D8803	SLR-342VR-T16	L.E.D.		
	TRANSISTOR				
	Q8481	2SC2412K/QR/-X	SI.TRANSISTOR		
	Q8801	2SA1037AK/QR/-X	SI.TRANSISTOR		
	IC				
	IC8481	LA6515	I.C(MONO-ANA)		
	IC8801	GP1U281Q	IFR DETECT UNIT		
	OTHERS				
		CM35921-005-H	CDS HOLDER		
		CM36626-B01-H	L.E.D.HOLDER		
⚠	F8901	QMF51E2-4R0J4	FUSE		
	FC8901	CEMG002-001Z	FUSE CLIP		
	J8302	QNN0279-003	PIN JACK		
	J8303	QNN0279-002	PIN JACK		
	J8304	QNN0279-001	PIN JACK		
	J8801	QNS0155-001	JACK		
⚠	LF8901	QQR1035-002	LINE FILTER		
	S8801	QSW0619-003Z	PUSH SWITCH	CH+	
	S8802	QSW0619-003Z	PUSH SWITCH	CH-	
	S8803	QSW0619-003Z	PUSH SWITCH	MENU	
	S8804	QSW0619-003Z	PUSH SWITCH	TV/VIDEO	
	S8805	QSW0619-003Z	PUSH SWITCH	VOL+	
	S8806	QSW0619-003Z	PUSH SWITCH	VOL-	
⚠	S8901	QSW0750-001	PUSH SWITCH	POWER	
⚠	VA8901	QAF0052-621	VARISTOR		
	Y8401	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J

AV-21L91-BK,AV-25L91-BK AND AV-29L91-BK REMOTE CONTROL UNIT PARTS LIST(RM-C353-1C)

⚠	Ref.No.	Part No.	Part Name	Description	Local
		31392340128	BATTERY COVER		

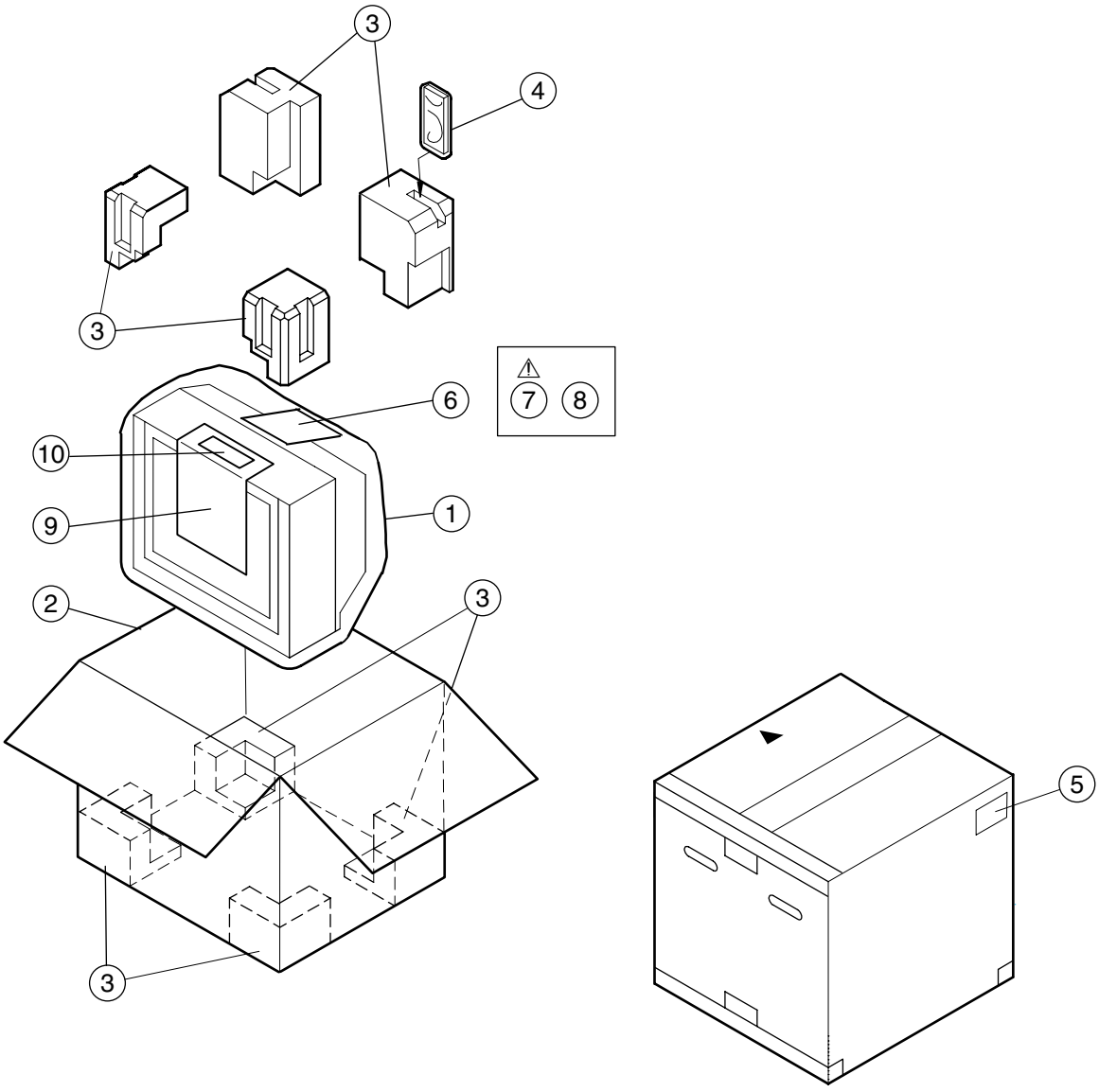
PACKING [AV-21L91-BK, AV-25L91-BK]



PACKING PARTS LIST [AV-21L91-BK, AV-25L91-BK]

⚠	Ref.No.	Part No.	Part Name	Description	Local
	1	CP30697-005-H	POLY BAG	[AV-21L91-BK]	
	1	CP30697-006-H	POLY BAG	[AV-25L91-BK]	
	2	GG10045-021A-H	P CASE	[AV-21L91-BK]	
	2	GG10045-019A-H	P CASE	[AV-25L91-BK]	
	3	GG10131-001B-H	CUSHION ASSY	[AV-21L91-BK]	
	3	GG10135-001B-H	CUSHION ASSY	[AV-25L91-BK]	
	4	RM-C353-1C	RC HAND UNIT		
	5	CM47385-00B-H	SERIAL LABEL		
	6	QPA02503505	POLY BAG		
⚠	7	LCT1064-001A-H	INST BOOK		
	8	ATEAB001-00A	MATCHING BOX		

PACKING [AV-29L91-BK]



PACKING PARTS LIST [AV-29L81-BK]

⚠	Ref.No.	Part No.	Part Name	Description	Local
	1	CP30697-006-H	POLY BAG		
	2	GG10045-020A-H	P CASE		
	3	LC11066-002B-H	CUSHION ASSY		
	4	RM-C353-1C	RC HAND UNIT		
	5	CM47385-00B-H	POS LABEL		
	6	QAP02503505	POLY BAG		
⚠	7	LCT1064-001A-H	INST BOOK		
	8	ATEAB001-00A	MATCHING BOX		
	9	LC30946-001A-H	CRT PROTECTOR		
	10	LC30947-002A-H	CAUTION SHEET		